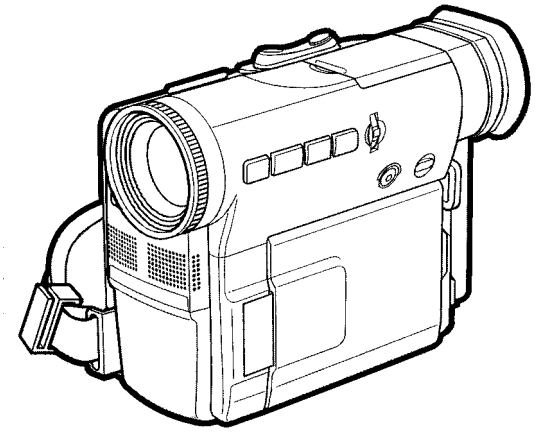
SHARP SERVICE MANUAL

S19B2VL-PD3S/

LIQUID CRYSTAL DIGITAL CAMCORDER PAL



MODELS VL-PD3S/H/E

In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified be used.

CONTENTS

Page

1. SPECIFICATIONS 1-1
2. PART NAMES 2-1
3. DISASSEMBLY OF THE SET 3-1
4. MECHANISM ADJUSTMENT JIGS AND PARTS 4-1
5. INSPECTION AND MAINTENANCE ITEMS AND INTERVALS 5-1
6. MECHANICAL ADJUSTMENTS AND CHECKS 6-1
7. TAPE RUNNING ADJUSTMENT 7-1
8. MECHANICAL SECTION ASSEMBLY AND PARTS REPLACEMENT (DISASSEMBLY AND REASSENBLY) 8-1
9. ADJUSTING THE ELECTRICAL CIRCUITS 9-1
10. USEFUL TIPS 10-1
11. SIGNAL FLOW DIAGRAMS 11-1
12. BLOCK DIAGRAMS 12-1
13. SCHEMATIC DIAGRAMS 13-1
14. SEMICONDUCTOR LEAD IDENTIFICATION 14-1
15. PRINTED WIRING BOARD ASSEMBLIES 15-1
16. REPLACEMENT PARTS LIST 16-1
17. PACKING OF THE SET 17-1

SERVICE MANUAL LIQUID CRYSTAL DIGITAL CAMCORDER PAL MODELS VL-PD3S/H/E

SHARP CORPORATION

1. SPECIFICATIONS

Signal System:	PAL standard
Recording System:	2 rotary heads, helical scanning system
Cassette:	Digital VCR Mini DV video cassette
Recording/Playback Time:	90 minutes (DVM60, LP mode)
Tape Speed:	SP mode: 18.831 mm/second LP mode: 12.568 mm/second
Pickup Device:	$^1/_3$" (8.5 mm, effective size: 6.0 mm) CCD image sensor (with approx. 770,000 pixels including optical black)
Lens:	10 × power zoom lens (F1.4-3.0, f=4.7-47 mm), full-range auto focus, manual focusing possible
Lens Filter Diameter:	30 mm
Monitor:	2.5" (6.2 cm) –full-color LCD screen
Minimum Illumination:	4 lux* (F1.4, with gain-up and digital zoom off)
Video Output Level:	1.0 Vp-p 75-ohm unbalanced
Audio Output Level:	– 8 dBs, impedance less than 2.2 kohms
Speaker Output:	300 mW
Power Requirement:	DC 7.4V
Power Consumption:	4.6W (during camera recording using the viewfinder in full auto mode with zoom motor off) 5.1W (during camera recording using the LCD screen in full auto mode with zoom motor off and backlight in normal mode)
Operating Temperature:	0°C to +40°C
Operating Humidity:	30% to 80%
Storage Temperature:	– 20°C to +60°C
Dimensions (approx.):	70 mm (W) × 98 mm (H) × 128 mm (D) without protruding parts
Weight (approx.):	524 g (without battery pack, lithium battery and video cassette)
Supplied Accessories:	Battery pack BT-L221, AC adapter/battery charger, Power cord, DC cable, Infrared remote control, S-video/Video/Audio cable, Lithium battery x 2 (CR2025 type), Shoulder strap, Mini DV video cassette.

AC Adapter/Battery Charger (UADP-0296TAZZ)

Power Requirement:	AC 110-240 V, 50/60 Hz
DC Output:	7.3 V
Power Consumption:	15 W
Dimensions (approx.):	80 mm (W) × 45 mm (H) × 98 mm (D)
Weight (approx.):	181 g

Battery Pack BT-L221

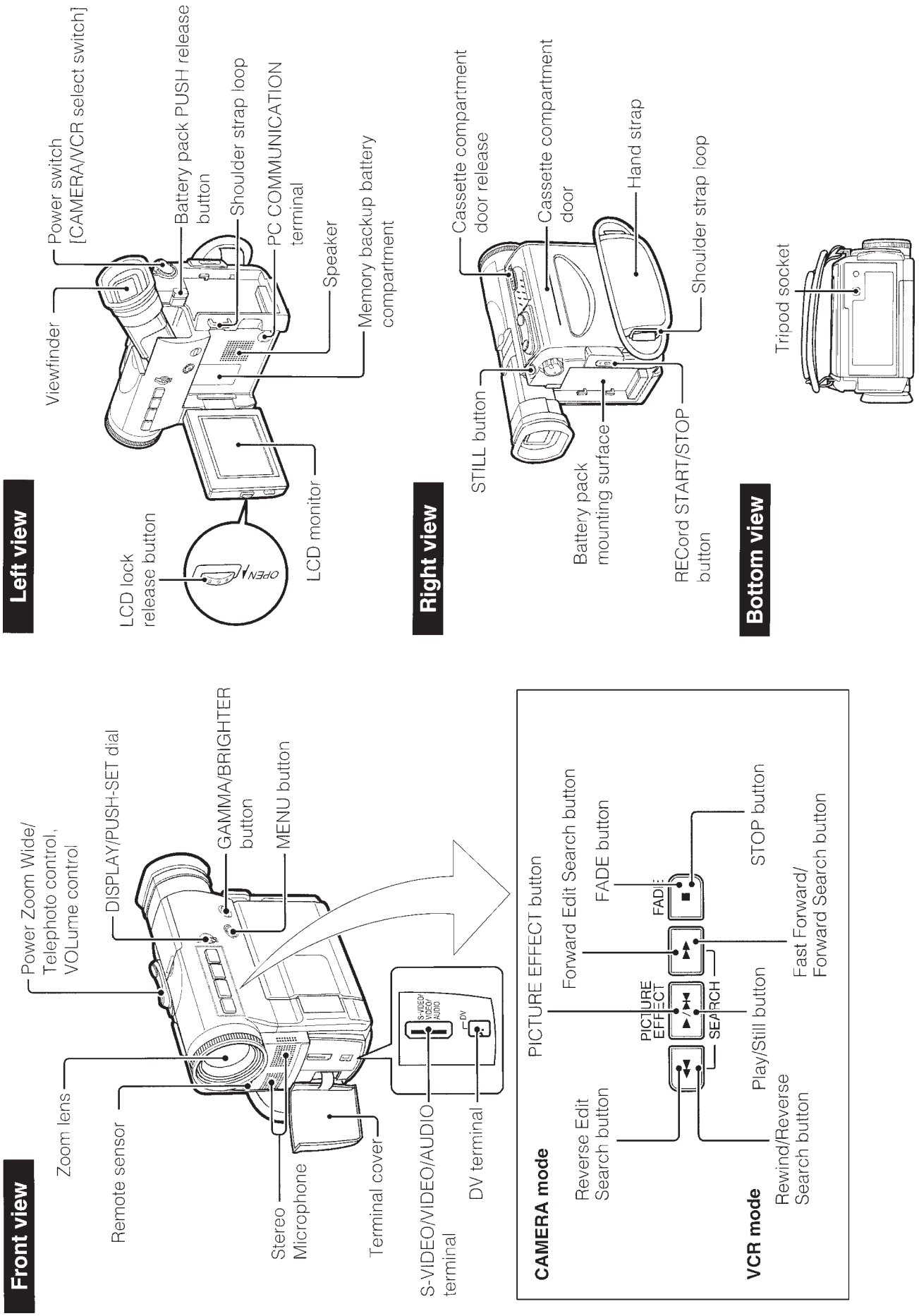
DC Output:	7.4V
Dimensions (approx.):	40 mm (W) × 25 mm (H) × 53 mm (D)
Weight (approx.):	79 g

Specifications are subject to change without notice.

*Minimum illumination: Since there is no widely accepted testing procedure for determining minimum illumination capability, lux ratings are comparable only between models from the same manufacturer.

2. PART NAMES

For details on the use of each control.

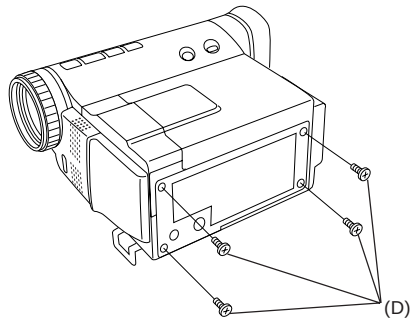


3. DISASSEMBLY OF THE SET

Note:

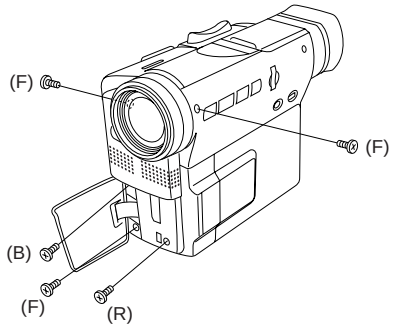
Before removing the cabinet, turn off the power supply, and ascertain that the battery have been removed.

1.



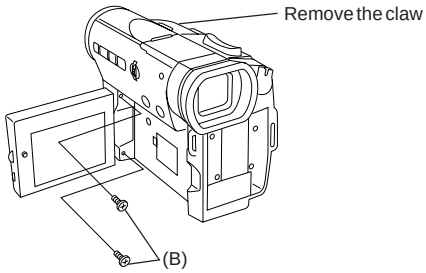
· Remove the screws ((D)XiPSF17P03000)(4pcs.) of the bottom cover and them.

2.



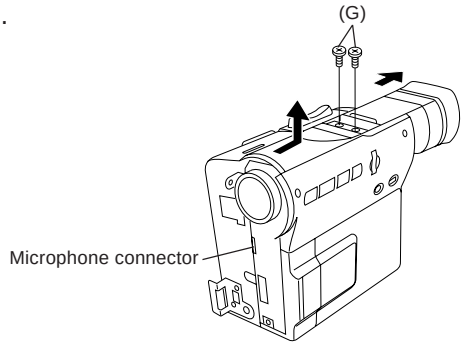
· Remove the screws ((F)XiPSN17P04000)(3pcs.), ((B)LX-HZ0050TAFN)(1pc.) of the front cover and the DV terminal's screw ((R)XiPSN16P05000)(1pc.).

3.



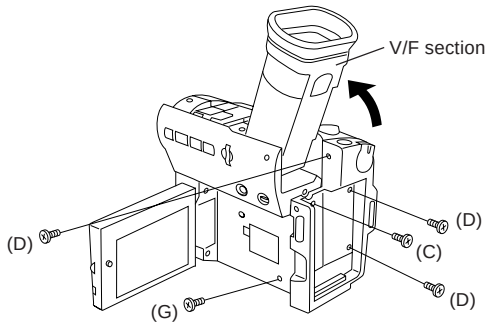
· Open the LCD panel, remove the screws ((B)LX-HZ0050TAFN) (2pcs.), the claws what is connected the cabinet A and remove the front cover.
Be careful so that not damage the lead wires of microphone when it removes the front cover.

4.



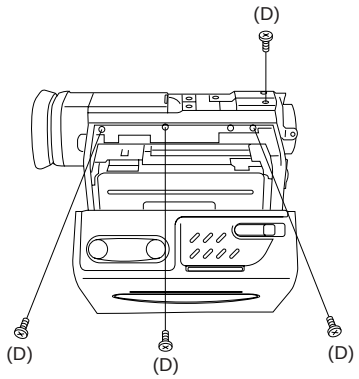
· Slide the section of V/F, and remove the plate of topside, the screws ((G)XiPSN17P03000)(2pcs.), and remove the top cover what is slided toward V/F slide.

5.



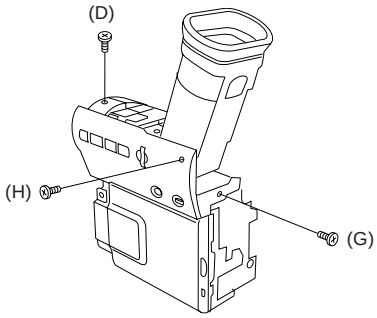
· Up the section of V/F, and remove the screw ((D)XiPSF17P03000) (1pc.).
· Remove the screws ((D)XiPSF17P03000)(2pcs.) and ((C) XiPSF1704000)(1pc.).
· Remove the screw ((G)XiPSN17P03000)(1pc.) and battery cover.

6.



· Remove the screw ((D)XiPSF17P03000)(1pc.) of topside and open the cassette compartment door, remove the screws ((D)XiPSF17P03000) (3pcs.) of both sides and center screws.
Remove the Remote control receiver unit connector, the Zoom FPC, the EJECT switch connector, the H/A connector, and the cabinet A.

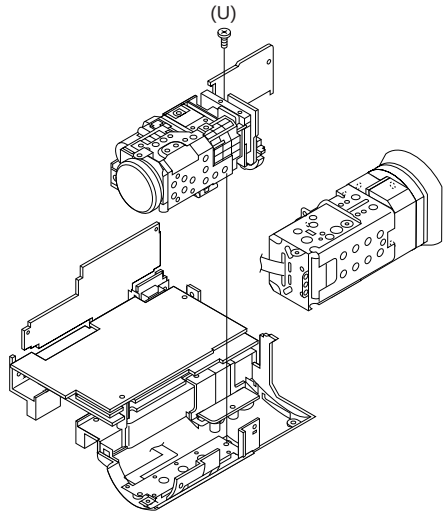
7.



· Remove the screw ((D)XiPSF17P03000)(1pc.) topside of cabinet B and the screws ((H)XiPSN17P02000)(1pc.) of side surface and ((G) XiPSN17P03000)(1pc.) of rear surface.

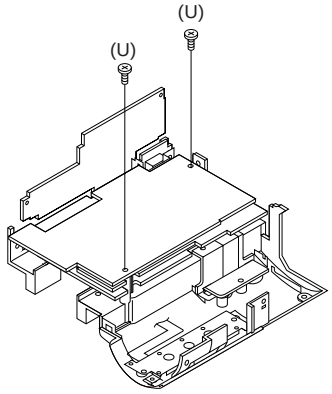
(Note.) In case of disassemble or assemble the section of V/F, do the work with great care that there are never taint or intermix of dust.

8.



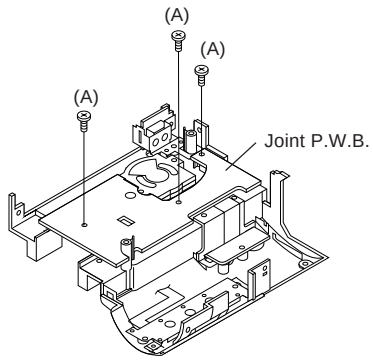
· Remove the screw ((U)LX-HZ0013TAFF)(1pc.) fixed the jogholder and the lens unit.
Remove the connector of main P.W.B. and remove to lift V/F unit.

9.



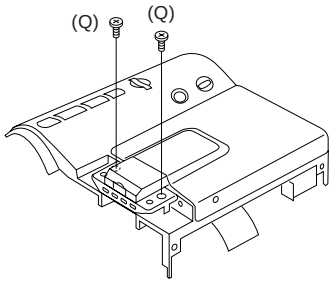
· Remove the screws ((U)LX-HZ0013TAFF)(2pcs.) and VCR P.W.B..

10.



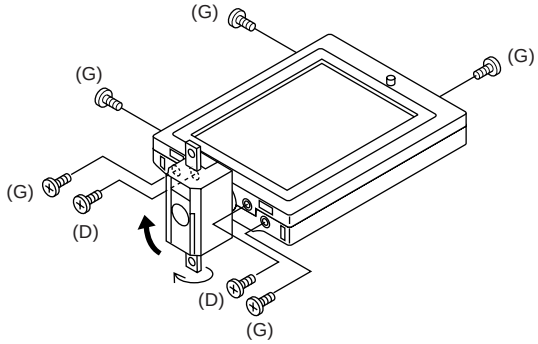
· Remove the screws ((A)LX-HZ0050TAFF)(3pcs.) and joint P.W.B..

11.



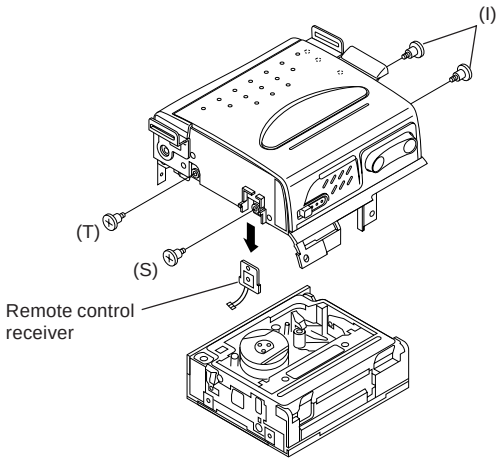
· Remove the LCD tilt fixing screws ((Q)LX-HZ0017TAFF)(2pcs.) and LCD cabinet unit.

12.



· Turn to a right angle the shaft of the LCD tilt unit section, turn the LCD tilt unit and it is perpendicular to the LCD cabinet.
· Remove the fixing screws ((G)XiPSN17P03000)(5pcs.), ((D) XiPSF17P03000)(2pcs.) and LCD cabinet.

13.



· Remove the floating screws ((I)LX-BZ0032TAFD)(2pcs.), ((S) LX-BZ0225TAFF)(1pc.) and ((T)LX-BZ0231TAFE)(1pc.) and mechanism section .

<Screws>

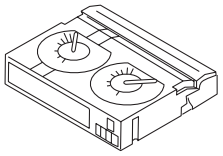
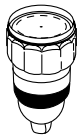
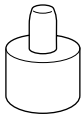
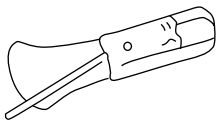
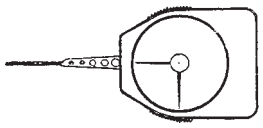
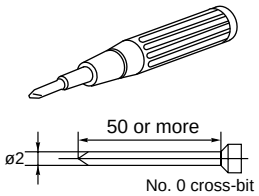
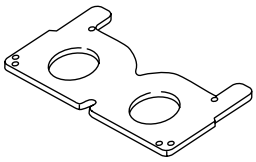
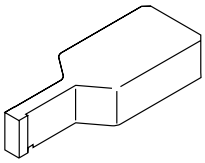
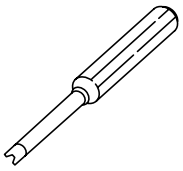
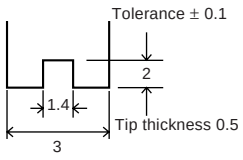
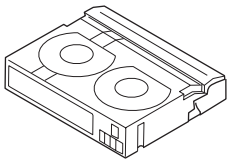
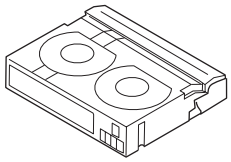
A	LX-HZ0050TAFF	M1.7×4 Black
B	LX-HZ0050TAFN	M1.7×4 Silver
C	XiPSF17P04000	M1.7×4 Black
D	XiPSF17P03000	M1.7×3 Black
F	XiPSN17P04000	M1.7×4 Silver
G	XiPSN17P03000	M1.7×3 Silver
H	XiPSN17P02000	M1.7×2 Silver
I	LX-BZ0232TAFD	Floating screw B
Q	LX-HZ0017TAFF	M2×8 Black
R	XiPSN16P05000	M1.6×5 Silver
S	LX-BZ0225TAFF	Floating screw Black
T	LX-BZ0231TAEE	Floating screw A Silver
U	LX-HZ0013TAFF	M1.7×6 Black

4. MECHANISM ADJUSTMENT JIGS AND PARTS

4-1. Mechanism check adjustment jigs

Configuration
1. Name
2. Part No.
3. Code
* Model, Uses Remarks

<Note: The entries of list>

 1. PB-use cassette Torque meter 2. 9DASD-1015 3. DB * SD-1015	 1. Torque gauge 2. JiGTG0045 3. CN * For use in VS-REW winding torque measurement.	 1. Torque gauge head 2. 9EQTGH-DH5000 3. BW * For use with the above torque gauge.	 1. Tension gauge 4N (400gf) 2. JiGSG0400 3. BK * For measurement of pinch roller pressure.	 1. Dial tension gauge 2. 9DAPTG-10-10W 3. CA * PTG-10
 1. Torque screwdriver 150mN·m (1.5kg·cm) 2. JiGTD1500RTDH 3. CB	 1. Master plane 2. 9EQMP-VLPD1 3. CL * For checking reel base height.	 1. Height adjustment jig 2. 9DAHG-PD1 3. BZ * For height adjusting.	 1. Height adjustment screwdriver 2. 9EQDRiVER-DH5 3. BC * For S guide adjustment.	* For guide roller adjustment. * For Tu guide adjustment. * For T roller adjustment. * Bit shape (see figure below). 
 1. Alignment tape – (I) 2. VR3-GAZXS 3. CF * For tape running adjustment.	 1. Alignment tape – (II) 2. VR3-JPZQS 3. * For SW point adjustment. * 90ADVC-TAPE PAL can use, too.	<Miscellaneous> (1) Slide caliper (2) Precision screwdrivers (Phillips head and slotted) (3) Radio needle-nose pliers (4) Tweezers		

4-2. Parts for regular periodic inspection and maintenance

1. Oil Cosmo Hydro HV22/100 2. HV22 : 9EQ-Oil-HV22 3. HV22 : AE * Cosmo Petroleum K.K.	1. Cleaning paper 2. JiGDUSPER 3. AP * DUSPER ∑ (SIGMA) (ozu Co., LTD.)	1. Grease: Moly Coat YM-103 2. 99FGREASE-YM103 * Dow coaning	1. Cleaning liquid: industrial-use ethyl alcohol * Commercially avaitable item
		1. Screw lock (1401B) * Three Bond	1. Extremely thin cotton swab * Commercially available item

<How to make jigs for mechanism checking and adjustment>

(1) Reel hub for back tension measurement (Fig. 1)
   1) Obtain a commercially available cassette tape reel hub. (Disassemble the cassette tape and remove the tape from the reel hub.)
   2) Paste one end of a string (about 20cm long) to the reel hub with (for example) cellophane tape.
   3) Paste the weight of 0.21N(21gf) on the upper side reel hub.

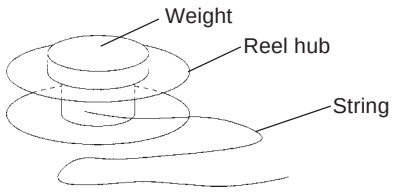


Fig. 1

(2) String for use in pinch roller snap-fit force measurement (Fig. 2)
   1) Obtain an approximately 20cm length of commercially available string.
   2) Tie the 2 ends together to form a loop.

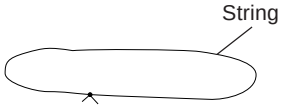


Fig. 2

5. INSPECTION AND MAINTENANCE ITEMS AND INTERVALS

In order to keep the mechanical section always in good condition, perform the following inspection and maintenance at regular intervals. In addition, after repair, perform the following maintenance items regardless of how long the user has been using the unit.

5-1. List of inspection and maintenance items

○ • • • Replace. □ • • • Clean. △ • • • Lubricate. ★ • • • Check.

	Inspection and maintenance location	Time of use (h) 500	1,000	1,500	2,000	3,000	Symptoms that indicate need for maintenance	Remarks
Tape running system	Tape running section (see section 7-3)	□	□	□	□	□	• Block-type noise • Head hole clogging • Tape damage	**Note:** Replace the drum ass'y if the video head is cleaned but the envelope is not still appeared. (When the envelope is normal, refer to "10. USEFUL TIPS".)
	Drum section, Video head (see section 7-3)	□	□	□	□	□		
		<Rollers> • Replace if there is anything abnormal in the rotation, or if there is run-out (that becomes large). <Other than the above> • Clean the section that contacts the tape (especially the lower drum helical section). Use the specified cleaning liquid.						
Drive system	Timing belt	—	★○	—	★○	★○	• The tape fails to run. • The tape becomes slack. • Block-type noise • Abnormal noise	• Replace if there is anything abnormal.
	Pinch roller	□	□	□	□○	□		
	Capstan motor	—	○	—	○	○		
	Swing arm S reel base, Tu reel base	—	★○	—	★○	★○		
	Center pulley shaft Intermediate pulley shaft Swing arm boss Intermediate gear A shaft, Intermediate gear B shaft	—	△	—	△	△	• Abnormal noise	• Lubricate with oil. [Oil] Cosmo Hydro HV22 .... Excepting intermediate gear A and B Cosmo Hydro HV100 .... Intermediate gear A and B **Note:** Apply oil to the shaft, then wipe lightly with a cloth.
	Tension-arm shaft	—	△	—	△	△	• Tape damage • Abnormal played-back image	
	Loading motor Mode switch	—	★○	—	★○	★○	• Cannot eject. • Fails to enter a mode.	• Replace if anything is abnormal (including the noise).
Performance checks	Abnormal noise	★	★	★	★	★	• The tape fails to run. • The tape becomes slack. • Tape damage • The play-back image is abnormal.	• Replace any part that fails to perform within the standard.
	PB · VS/REW winding torque	—	★	—	★	★		
	PB · VS/R · loading back tension Tu reel base ratchet torque S reel base no-load torque	—	★	—	★	★		
	AHC	—	○	—	○	○		

[Oil] Cosmo Hydro HV22, HV100 [Screw lock] Three Bond 1401B
[Grease] Moly Coat YM-103 [Cleaning liquid] Industrial-use ethyl alcohol

5-2. Precautions

(1) When replacing any part, always replace the cut washer that was removed with a new one.
(2) This mechanism does not have control adjustment. If the control cannot be set as required, clean and or replace parts.
(3) On the oil
  a) Always use the specified oil. (Using another kind of oil can cause various kinds of trouble.)
  b) Always use clean oil, without any mixed-in dirt, to lubricate bearings. (Using oil with dirt mixed in can cause the bearings to wear or to stick.)
  c) One drop of oil is the amount shown in the Fig. 1, on the point of a pin.
(4) Perform circuit repair, tape running adjustment, etc. with the cassette controller assembly attached to the mechanism.
(5) To operate the mechanical section alone, remove the FPC of loading motor from the connector (section B in the Fig. 2), and apply voltage to the loading motor to drive it. The voltage between terminals must be DC3V or less. (Forcing the gears to turn by hand entails danger of breakage.)
(6) To install the cassette controller, push section A in the Fig. 2. Do not push anything else.
(7) Do not deform any of the mechanical parts.

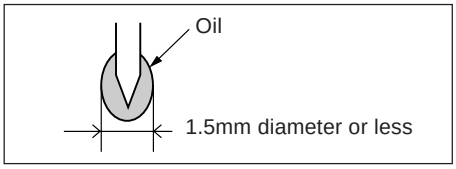


Fig. 1

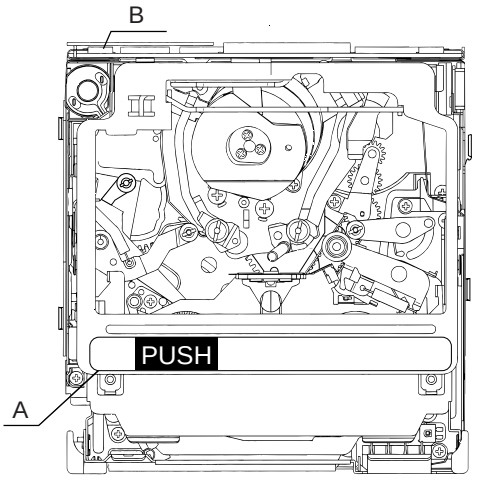


Fig. 2

6. MECHANICAL ADJUSTMENTS AND CHECKS

The items discussed here relate to general on-site servicing (field servicing). Adjustments and replacements that require sophisticated facilities, jigs and technology are omitted.
In addition, in order to maintain the characteristics that the unit has when it is new, not only are inspection and maintenance necessary, but it is absolutely necessary that, for example, the tape not be damaged, and always use jigs for adjustments that require them.

<Precautions>
(1) Always set the power supply and state of the unit as follows Notes for mechanism adjustments and checks.
AC adapter used, with cassette controller assembly
AC adapter used, without cassette controller assembly (Independent Mechanism)
DC3V, without cassette controller assembly (Independent Mechanism)
(2) When performing checks with a DC3V power supply and independent mechanism, disconnect the loading motor FPC from the connector.
(3) Always run the tape with the cassette controller assembly attached.

6-1. Checking the playback (recording) winding torque

AC adapter used, with cassette controller assembly

(1) Set the torque cassette with the cassette controller assembly attached, then, in SP recording mode (playback mode if a signal has already been recorded in SP mode on the tape), confirm that the torque on the winding side is within the standard.
<Winding torque standard in record (playback) mode>
(If there is torque ripple, read the center value.)
0.70 ± 0.35mN·m (7.0 ± 3.5gf·cm),
ripple 0.2mN·m (2gf·cm) or less

6-2. Checking the rewinding playback (VS-REW) winding torque

AC adapter used, without cassette controller assembly (Independent Mechanism)

(1) Remove the cassette controller assembly, press the DOWN switch, using the adhesive tape and referring to 8-3, operate in the TEST mode (T01) to rewind, and set the rewinding playback (VS-REW) mode.
(2) Set the torque gauge on the S reel base, press the front end of tension post with your finger in the arrow A direction so as to ascertain that the winding torque is as specified. (Check without rotating the torque gauge.)
<Rewinding playback (VS-REW) winding torque standard>
(If torque ripple exists, read its center value.)
1.6 ± 0.6mN·m (16 ± 6gf·cm), ripple 0.4mN·m (4gf·cm) or less
(3) After checking the winding torque remove the torque gauge, and remove the adhesive tape used in item (1) above (refer to 8-3). The STANDBY mode is set automatically.

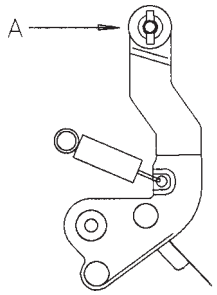


Fig. 1. Removal of tension band when measuring the rewinding playback (VS-REW) winding torque

6-3. Checking of reel base height

DC3V, without cassette controller assembly (Independent Mechanism)

(1) Remove the cassette controller assembly (refer to 8-2).
(2) Referring to 8-1, apply DC3V to the loading motor and put the system into playback mode.
(3) Taking adequate care so that the master plane does not contact drum, running parts (guide roller, etc.), or the MIC contacts. Fit the master plane holes to the 2 guides (A and B) in Fig. 2.
(4) Confirm that the heights of the S reel base reel receiving surface and the Tu reel base reel receiving surface below the master plane top surface are within the set values, using, for example, a slide calliper (Fig. 3).
When checking the S reel base height, press the front end of tension post in the arrow A direction with your finger to release the tension band, and then check the height in this state (Fig. 1).
(5) If the height is not within set values, replace the washer under the reel base, and adjust as specified.
Note: After the adjustment, make sure that the reel bases rotate smoothly.

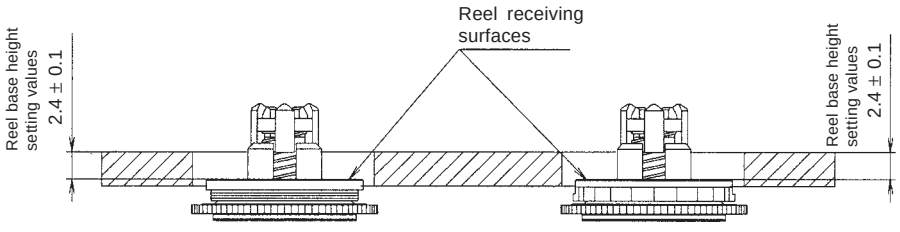


Fig. 2

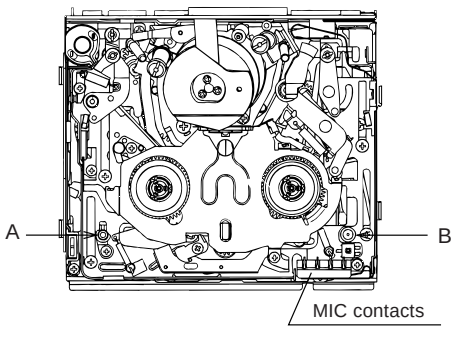


Fig. 3

6-4. Back tension torque check and adjustment in record (playback) mode

AC adapter used, with cassette controller assembly

(1) Checking
Set the torque cassette (SD-1015), and make sure in the SP record mode that the supply side torque is within the standard shown below (or in the playback mode for the tape on which the signal has been SP-recorded).

<Standard>
(If torque ripple exists, read its center value.)
0.7 ± 0.1mN·m (7 ± 1gcm)

(2) Adjustment (Fig. 4)
If the value is out of standard range, adjust, using the screw 1 shown in Fig. 4.
1. Loosen the screw 2 slightly.
2. Adjust to turning the screw 1. When back tension is too high, turn the screw 1 counterclockwise (CCW).
When back tension is too low, turn the screw 1 clockwise (CW).
3. After adjustment fix the angle with the screw 2. (At this time take care so as to prevent excessive tightening.) Apply Screw Lock to the screw 1.

<Caution>
Screw tightening torque: 0.04Nm (0.4kgcm)

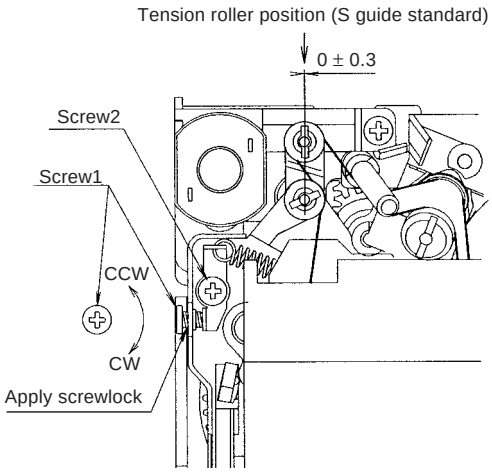


Fig. 4. Check (tape exists)

6-5. Checking and adjustment of tension roller position in record (playback) mode

DC3V, without cassette controller assembly (Independent Mechanism)

(1) Checking
Before winding the 60-min tape make sure that the tension roller is in the same position as S guide as shown in Fig. 4.
If not, take out the tape and adjust in the following procedure.

(2) Adjustment (Fig. 5)
1. Set the playback mode without loading the tape.
2. Loosen the screw 3 slightly (to such an extent that the tension band holder 4 can be moved).
3. If the tension roller is inside from the specified position, shift the tension band holder 4 in the arrow Ⓐ direction. If the tension roller is outside, shift the tension band holder in the arrow Ⓑ direction, and fix with the screw 3. (Proper shift must be 0.2 to 0.6mm outside from the specified position.)
4. Check the position by the procedure described in item (1) Checking above.
5. If the position is not specified position, adjust again.

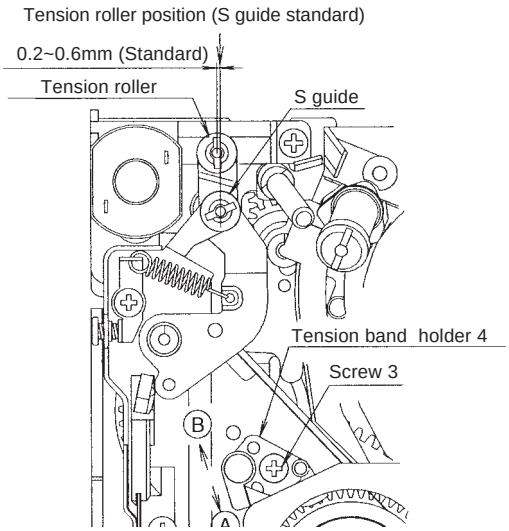


Fig. 5. Position adjustment (tape does not exist)

6-6. Checking of supply S reel base no-load torque

DC3V, without cassette controller assembly (Independent Mechanism)

(1) Remove the cassette controller assembly, then apply DC3V to the loading motor and put the system into L. start mode (refer to 8-1).

(2) Move the swing arm toward the Tu reel base side.
Be careful not to prevent damage to the gears and other parts all this while. (Fig. 6)

(3) Set a back tension measurement reel hub on the S reel base.

(4) Using a dial tension gauge, pull the string in the A direction, then confirm that the tension is within the standard.

<FF back tension standard>
(If the tension fluctuates, read its center value.)
20mN or less (2.0gf or less)

6-7. Checking of loading back tension

DC3V, without cassette controller assembly (Independent Mechanism)

(1) Remove the cassette controller assembly, then apply DC3V to the loading motor and put the system into L. start mode.
(refer to 8-1)

(2) Move the swing arm toward the S reel base side. Be careful not to prevent damage to the gears and other parts all this while. (Fig. 7)

(3) Set a back tension measurement reel hub on the Tu reel base.

(4) Using a dial tension gauge, pull the string in the A direction, then confirm that the tension is within the standard.

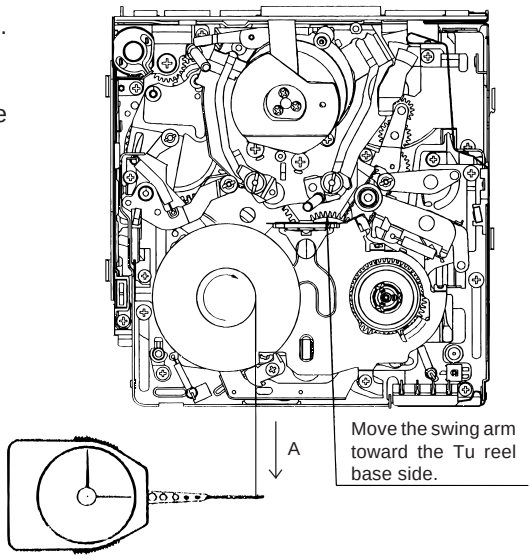


Fig. 6. S reel base no-load torque measurement method

<REW back tension standard>

(If the tension fluctuates, read its center value.)

$15 \pm \frac{15}{10}$ mN ($1.5 \pm \frac{1.5}{1.0}$gf)

6-8. Checking of winding Tu reel base ratchet torque

DC3V, without cassette controller assembly (Independent Mechanism)

(1) Remove the cassette controller assembly, then apply DC3V to the loading motor and put the system into standby mode. (refer to 8-1)

(2) Move the swing arm toward the S reel base side.
Be careful not to prevent damage to the gears and other parts all this while. (Fig. 8)

(3) Set a back tension measurement reel hub on the Tu reel base.

(4) Using a dial tension gauge, pull the string in the A direction, then confirm that the tension is within the standard.

<Winding Tu reel base ratchet torque standard >

(If the tension fluctuates, read its center value.)

90mN or less (9gf or less)

6-9. Checking of rewinding playback (VS-REW) back tension

DC3V, without cassette controller assembly (Independent Mechanism)

(1) Remove the cassette controller assembly, then apply DC3V to the loading motor and put the system into rewinding playback (VS-REW) mode. (refer to 8-1)

(2) Move the swing arm toward the S reel base side.
Be careful not to prevent damage to the gears and other parts all this while.

(3) Set a torque gauge on the Tu reel base.

(4) Turning the torque gauge to counterclockwise (1 turn for 3 seconds), then confarm that the torque is within the standard.

<Rewinding playback (VS-REW) back tension standard value>

(If the tension fluctuates, read its center value.)

0.70 ± 0.35mN·m (7.0 ± 3.5gf·cm)

6-10. Checking of pinch pressing force

DC3V, without cassette controller assembly (Independent Mechanism)

(1) Set the pinch roller pressing force measuring thread on the pinch lever (position A , Fig. 9).

(2) Set the mechanism to the playback mode, press the pinch roller against the capstan axis.

(3) Fit the tension gauge to the pinch roller pressing force measuring thread, pull in the arrow B direction shown in Fig. 11 to separate a little the pinch roller from the capstan axis.

(4) Gradually return the pinch roller, and when the pinch roller contacts parallel the capstan axis, read the value (see Fig. 10) to make sure that the value conforms to the standard shown below.

<Standard>

1.8 ± 0.3N (180 ± 30gf)

<Caution>

After making this measurement, quickly release the system from playback mode and remove the pinch roller from the capstan shaft. (If the pinch roller is left fitted onto the capstan shaft for a long time, the pinch roller will be deformed.)

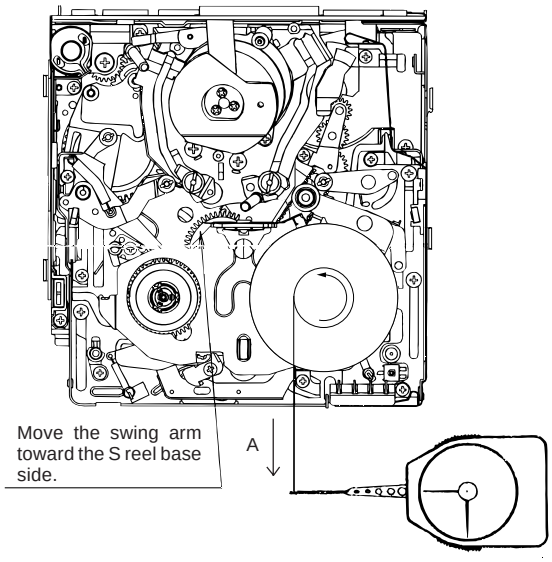


Fig. 7. Loading back tension measurement method

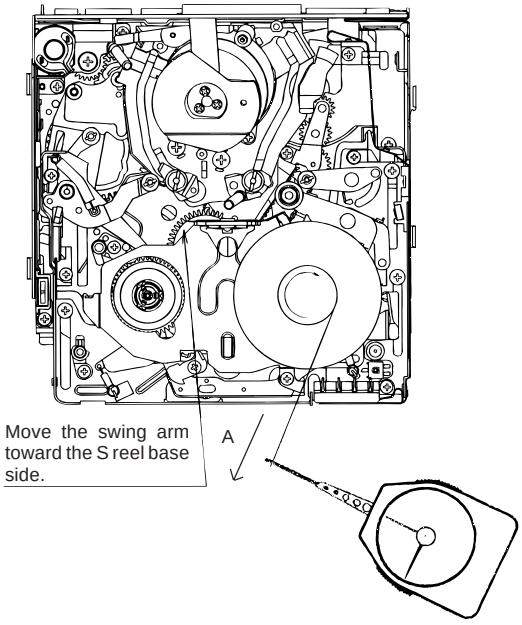


Fig. 8. Winding Tu reel base ratchet torque measurement method

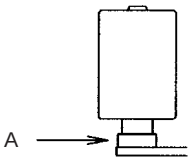


Fig. 9

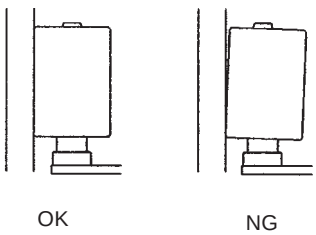


Fig. 10

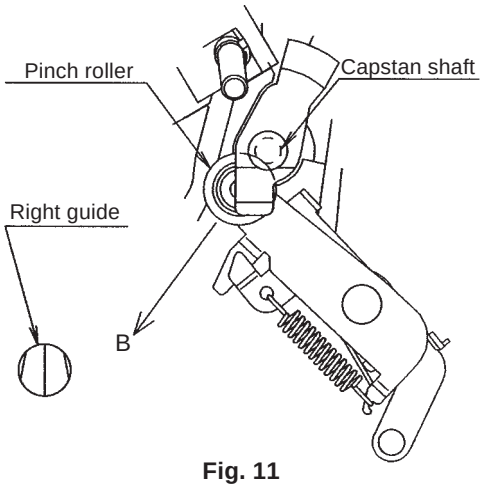


Fig. 11

7. TAPE RUNNING ADJUSTMENT

7-1. Adjustment locations

<Replacement parts>
· T roller, arm
· Tu guide, arm
· Slide chassis

→ Adjust the height of only replaced parts with the adjusting jig. Adjustment procedure 7-2

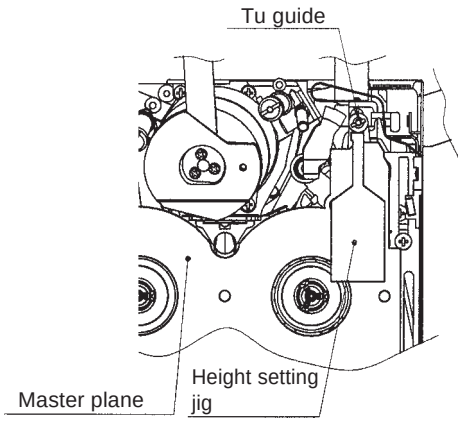
<Replacement parts other than those shown above>
· S guide
· Pole base
· Guide roller
· Drum assembly
· Capstan motor, etc.

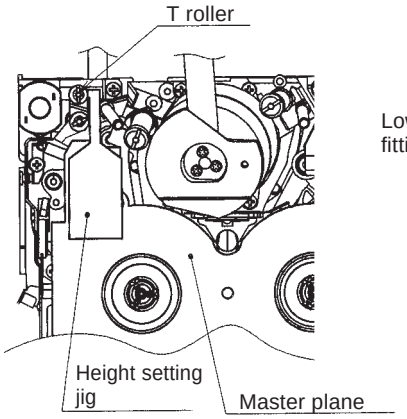
→ Height presetting is not necessary.

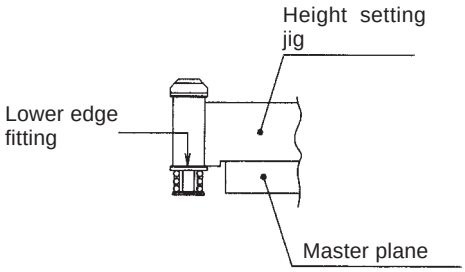
→ Running adjustment preparation Adjustment procedure 7-3 → Running rough adjustment Adjustment procedure 7-4 → Cassette controller installation → Running final adjustment Adjustment procedure 7-5

7-2. Running height adjustment

· After replacement of T roller or Tu guide adjust the height . (Adjust only the replaced parts.)
· After height adjustment do not turn the T roller. If crease is found on the tape of Tu guide, remove the crease by rotating. (As for details refer to the “running rough adjustment”.)
· After height adjustment of T roller or Tu guide, apply Screw lock to an end of shaft. (After replacement of S guide apply Screw lock to same point, too.)







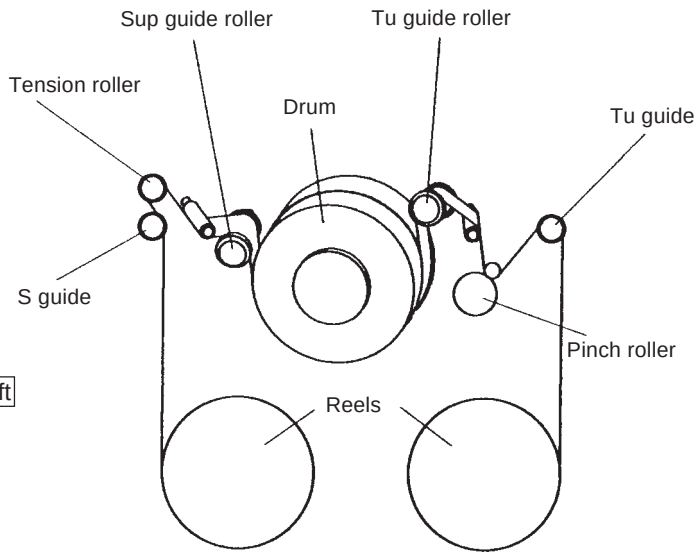
Fit height the par on low edge fitting.
After setting adjustment jigs, turn T roller and S guide counterclockwise to 225°.

7-3. Preparation for tape running adjustment

Meters, jig…	Oscilloscope, Adjustment remote control, Height adjustment screw driver, Alignment tape (for tape running adjustment, for switch point adjustment), Master plane, Height adjustment jig.

<Method and description>

(1) Remove the cassette controller assembly.
(2) Clean the tape running surface (especially, adequately clean the drum surface and the lower drum helicam surface).
(3) Connect an oscilloscope to each TP on the relay circuit board.
(4) Turn the AC adapter power ON.
(5) Using the adjustment remote control unit, put the system into TEST mode T-05.
(6) Replay the alignment tape for running adjustment, and make sure that the tape is running in the SP mode.
(7) Check the oscilloscope playback envelope, then, at +1/4 shift and -1/4 shift, check whether all of it is flat. If it is not, perform the following adjustment so that it becomes flat.
(Each time you push the PLAY key, the shift will change; [+1/4 shift] →[Normal]→[-1/4 shift]→[Normal], in order.)



7-4. Running rough adjustment

(Since this adjustment is performed without cassette controller, put a proper weight so that the cassette does not rise , and make an adjustment.)

1) Su, Tu guide roller height adjustment

<Method and description>

(1) Loosen the guide roller lock screw, then tighten loosely so that the roller turns easily.
(2) Replay an alignment tape, and adjust the Su, Tu guide roller so that the envelope sides of entrance and exit are flat.
(3) Perform ± 1/4 shift, then, as in the above case, adjust until the envelope becomes flat.
* If running is difficult for the entrance changed, turn the T roller to counter clockwise 180°. (refer to Fig. 1)

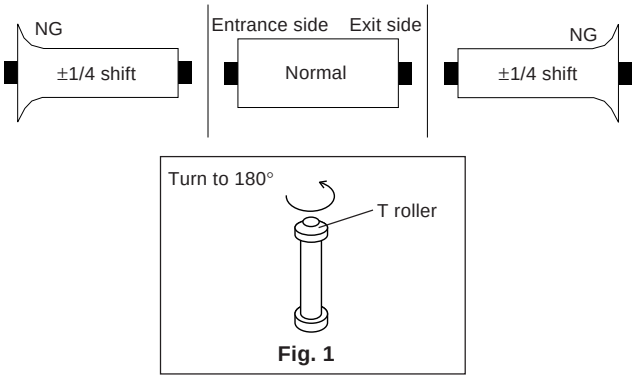
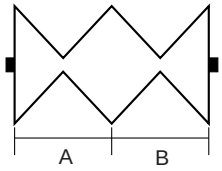


Fig. 1

2) Check of V/SR envelope wave form

<Method and description>

(1) Confirm that the envelope waveform peaks in V/SR mode are uniform.
(2) If they are not uniform, fine-adjust the guide roller and the Tu guide.

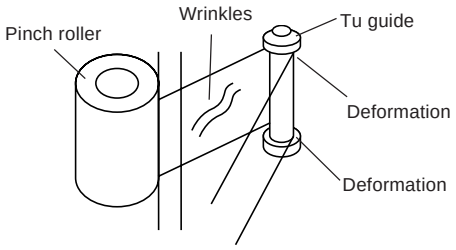


Adjust so that A ≒ B.

3) Check of tape wrinkles

<Method and description>

(1) Check that the tape is not distorted between the Tu guide and pinch in the PB mode and the V/SR mode.
⇨If crease is found, make an adjustment in the range of ±180°.
⇨After adjustment apply Screw Lock.



4) Check the rising time of the envelope wave form

<Method and description>

(1) Check the rising time of the envelope when switching from V/SR mode to PB mode. (Within 5 sec)
(2) Check the rising time of the envelope when switching from STOP mode to PB mode. (Within 5 sec)

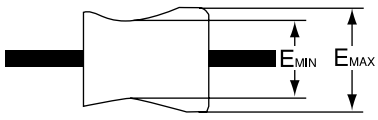
7-5. Final running adjustment

(Perform adjustment without removing the cassette controller.)

1) Adjustment of Sup and Tu guide roller height

<Method and description>

(1) Perform ± 1/4 shift, then if thire envelope wave's ratio of MAX. to MIN. are 60% or less, adjust again the height of guide roller. (Refer to Fig. 2)
(2) Finally adjust the lock screw of Sup and Tu guide roller.
(3) Once perform unloading and then loading to set the PB mode, and make sure that the envelope waveform does not change.



$$\frac{E_{MIN}}{E_{MAX}} \geqq 60\ (\%)$$

Fig. 2

2) Adjustment of playback SWP

<Method and description>

(1) Playback the alignment tape for switch point adjustment.
(2) Perform SWP automatic adjustment with adjustment remote control.

8. MECHANICAL SECTION ASSEMBLY AND PARTS REPLACEMENT (DISASSEMBLY AND REASSEMBLY)

Mechanical section disassembly and reassembly are explained in this section.
For removal of the cabinet, etc., refer to **3. DISASSEMBLY OF THE SET.**

<Precautions>

1. Always replace cut washers that have been removed, for example in parts replacement, with new ones.
2. When reassembling, be careful not to allow screws, washers or foreign matter to enter. They can cause mechanical misoperation.
3. Use the cleaning liquid, oil, grease and screw lock that are specified below. Use of any other kind can cause mechanical misoperation.

Oil: Cosmo Petroleum : Cosmo Hydro HV22/HV100	Screw lock: Three Bond :1401B
Grease: Dow Corning : Moly Coat YM-103	Cleaning liquid: Industrial-use ethyl alcohol

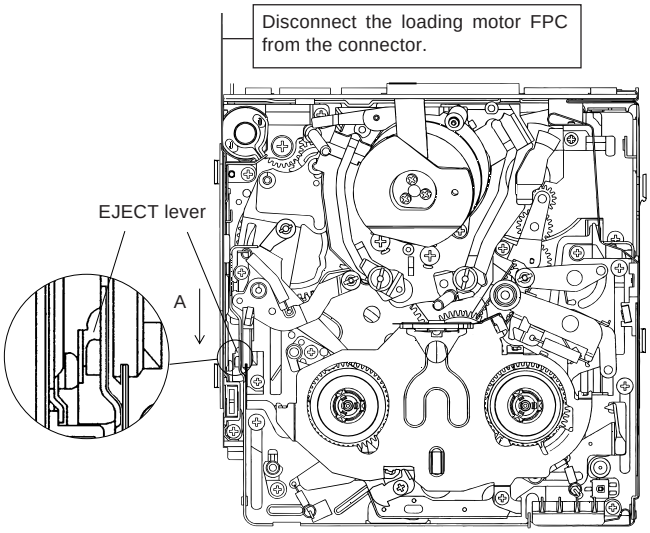
4. Turn the mechanical section over, do not place it on, for example, a desk. Deformation and scratching of mechanical parts can cause trouble.

8-1. On the mechanical modes

To operate the mechanism, apply DC3~4V to the loading motor.
At this time, disconnect the loading motor FPC from the connector.

(1) EJECT mode

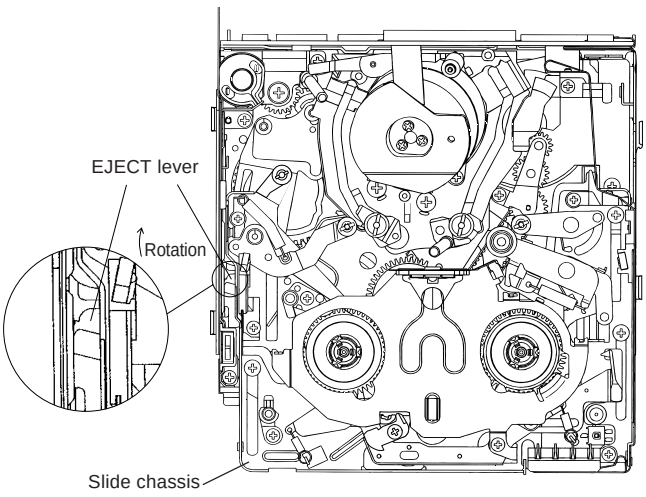
The mechanism position to take out the cassette where the EJECT lever is extremely shifted in the A direction. (It is impossible to lock the cassette controller assembly in this mode.)



EJECT mode diagram

(2) STANDBY mode

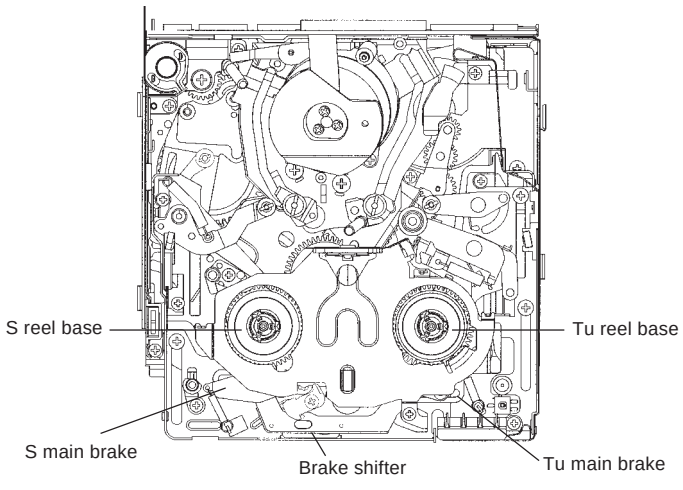
The mechanism position to set the cassette where the slide chassis is at the farthest position from the drum and the EJECT lever is in clockwise rotated position (position where the cassette controller assembly can be locked).



STANDBY mode diagram

(3) LOADING START mode

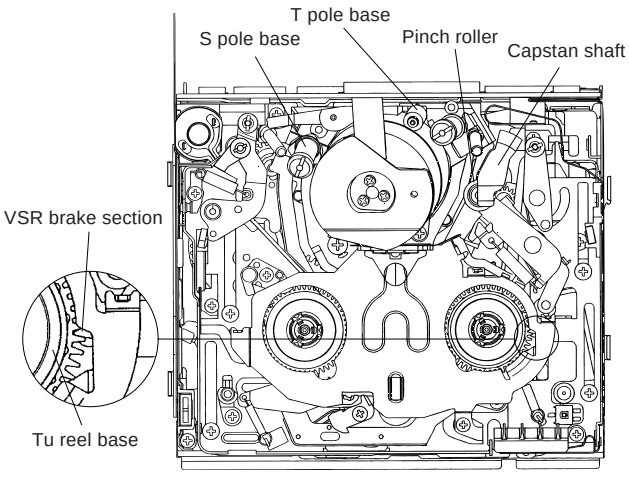
This is the mode where the tape is wound around the winding reel when a cassette with visible wind start leader tape is loaded. (The brake shifter moves to the left, the S main brake is separated from the S reel base and the Tu main brake is separated from the Tu reel base.)



LOADING START mode diagram

(4) REWINDING (VSR) mode

The mechanism position to rewind the tape (fast rewinding playback). The S and T pole base is pressed, the pinch roller is pressed to the capstan axis, the brake shifter VSR brake section engages with the Tu reel base gear.

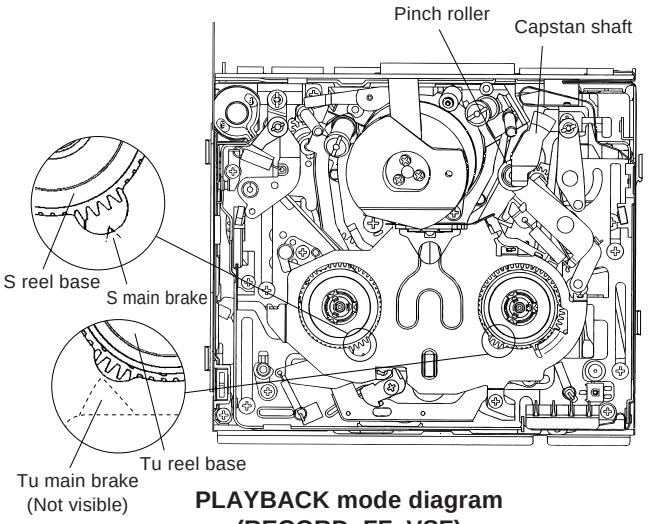


REWINDING (VSR) mode diagram

(5) PLAYBACK (RECORD, FF, VSF) mode

The mechanism position for playback, record, FF and fast feed playback.

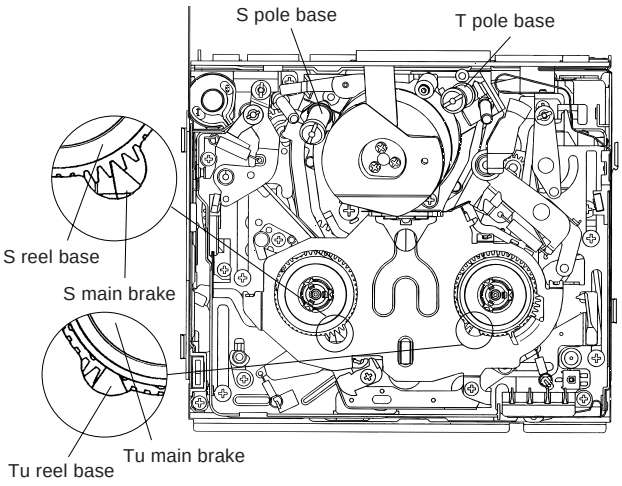
The pinch roller is pressed to the capstan axis, and the S/Tu main brake is separated from the S/Tu reel base.



PLAYBACK mode diagram (RECORD, FF, VSF)

(6) STOP mode

The system is in the STOP (Rec Lock in CAMERA mode) position; the S and the T pole bases are snap-fitted to the drum base, the S brake is in contact with the S reel base, and the Tu brake is in contact with the Tu reel base.



STOP mode diagram

8-2. Cassette controller assembly

<Removing>

(1) Remove the CAP FPC cover. (Remove the Head amplifier P.W.B. unit and tighten screw together.)

(2) Apply DC3V to the loading motor to set the standby mode. Press the lock lever in the arrow direction to move up the cassette controller. (See Fig. 1, direction Ⓐ or Ⓑ)
(When the lever is pressed in the direction Ⓐ, gently raise the cassette controller to release.)

(3) Remove the screws Ⓒ and Ⓔ shown in Fig. 2 and Fig. 3, and remove the Down guide Ⓘ.

(4) Remove the screws Ⓓ, Ⓕ, Ⓖ, and Ⓗ shown in Fig. 2, 3 and 4, raise the side plate Ⓙ in the direction K to remove it.

Note) When removing the cassette controller, take care so that the drum motor FPC provided between the side plate Ⓙ and the top cover Ⓡ is not damaged and so that the drum is not damaged.

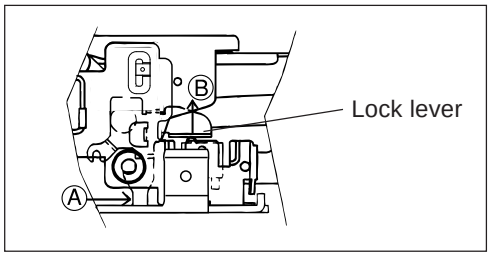


Fig. 1. Lock lever

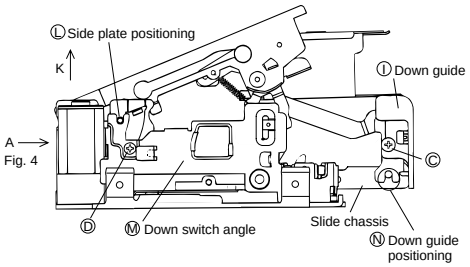


Fig. 2

<Installing>

(1) Apply DC3V to the loading motor to set the standby mode.

(2) Install the side plate Ⓙ.

1) Lower the cassette controller assembly in the direction contrary to K in Fig. 4, and fit the screws Ⓖ and Ⓗ as shown in Fig. 4.
Tightening torque 40 ± 4mN·m (0.4 ± 0.04kg·cm).
Before fitting the screws Ⓖ and Ⓗ make sure that the side plate positioning section Ⓛ engages with the down switch angle in Fig. 2.

Note) When lowering the cassette controller assembly in the direction contrary to K, place the drum motor FPC between the side plate Ⓙ and the top cover Ⓡ. At this time be careful so that FPC is not damaged. Take care so that the drum is not damaged.

2) In Fig. 2 fit the screws Ⓓ.
Tightening torque 40 ± 4mN·m (0.4 ± 0.04kg·cm)

3) In Fig. 3 fit the screw Ⓕ.
Tightening torque 40 ± 4mN·m (0.4 ± 0.04kg·cm)

(3) Install the down guide Ⓘ.

1) In Fig. 2 and Fig. 3 engage the slide chassis down guide positioning sections Ⓝ and Ⓞ with the down guide, install with the screws Ⓒ and Ⓔ.
Tightening torque 40 ± 4mN·m (0.4 ± 0.04kg·cm)

(4) Attach the CAP FPC cover.

1) Attach the Head amplifier P.W.B. unit and tighten screw together.
Tightening torque 40 ± 4mN·m (0.4 ± 0.04kg·cm)

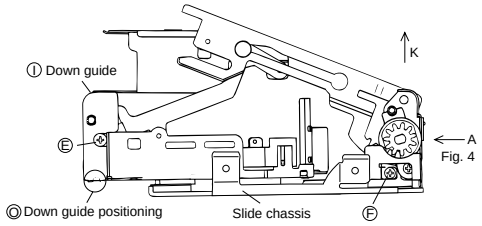


Fig. 3

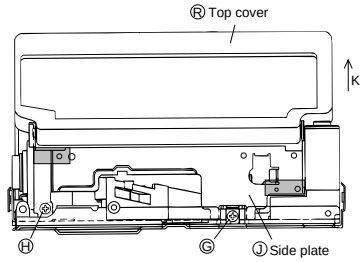


Fig. 4. (Fig. from direction A)

8-3. How to operate with the circuit board without the cassette controller assembly.

In this method, if the procedure is followed incorrectly there is danger of damaging the mechanism and the tape, so except in special cases, such as when measuring the VSR torque, do not perform this procedure. Normally operate this unit with the cassette controller assembly attached.
Be sure to follow each caution mentioned.

(1) Apply DC3V to the loading motor to set the EJECT mode.
(2) Remove the down switch angle.
1) In Fig. 5 remove the screws Ⓟ and Ⓠ.
Note) The loading motor solder joint (part T, Fig. 5) of DEW sensor FPC applied to the down switch angle is not removed. After the down switch angle is removed, take care so that the DEW sensor FPC is not broken.
(3) Surely secure the moving piece Ⓡ of down switch as shown in Fig. 6 with the aid of adhesive tape so that the switch is turned on.
(4) Install the down switch angle.
Note) To set the REC mode, press the pin of recognition switch Ⓢ (not required in other modes).
(5) Set the test mode (T-01) with the adjustment remote controller without loading the tape. Thereby the mechanism operation is enabled with the mode key.
(6) To eject, remove the tape (3).

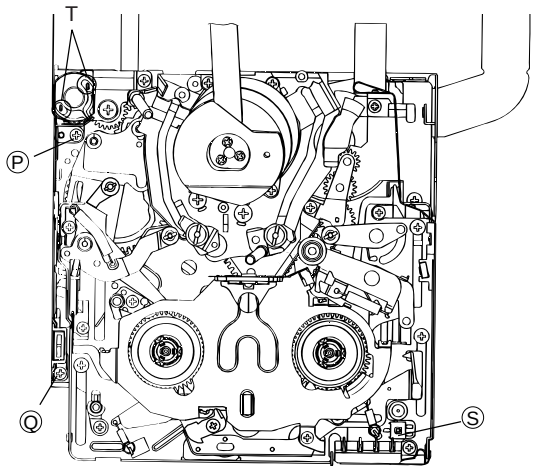


Fig. 5. STANDBY mode

8-4. Phase matching

For the parts listed below, match the phases as shown in Fig. 7.
(1) AHC cam (2) MODE switch (3) Main cam (4) Sub cam

Note) Before disassembling, check the marker positions carefully.
Note) When installing the engagement gear, make sure that the main cam and sub cam phase matching hole aligns with the chassis hole.
Note) After phase matching, turn the MODE switch by hand and confirm that it turns almost one complete turn. (After checking, return it to its original position.)

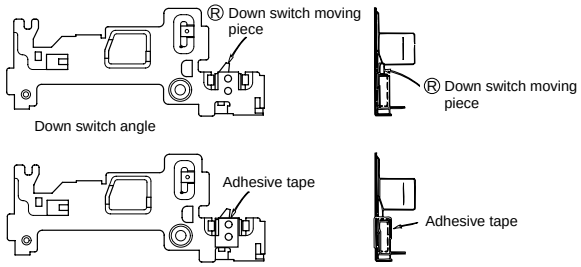


Fig. 6

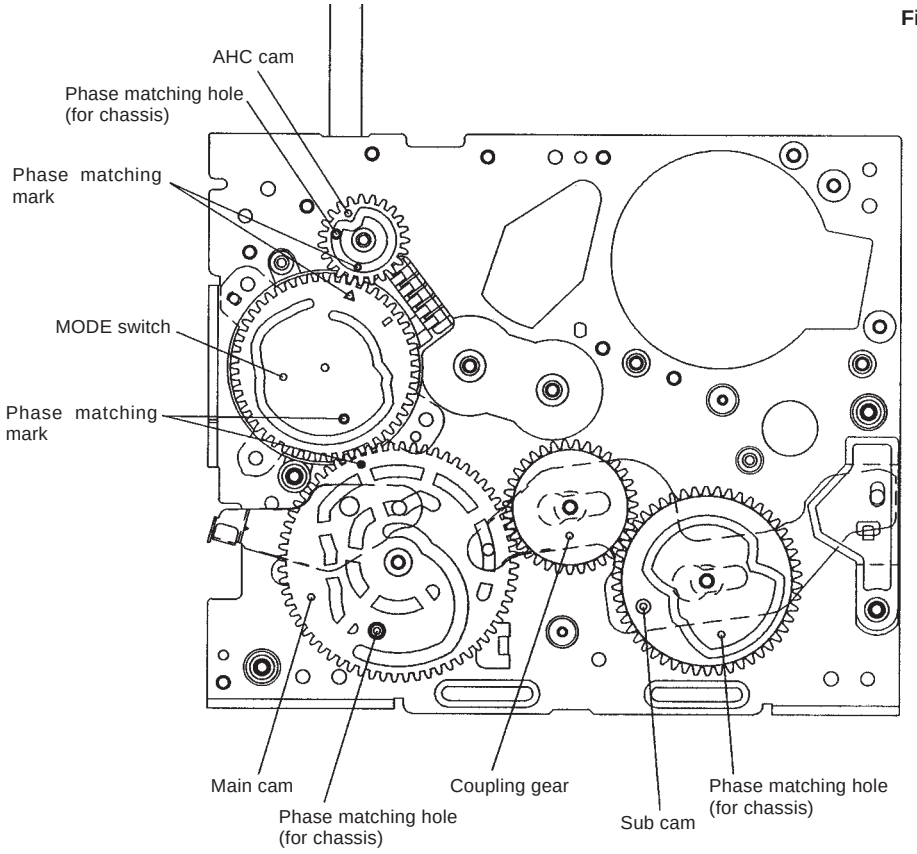


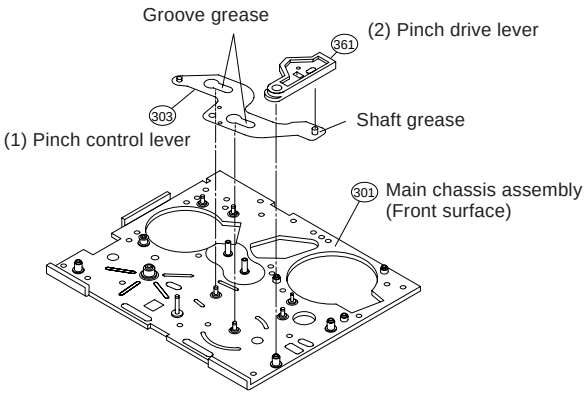
Fig. 7

8-5. Reassembly

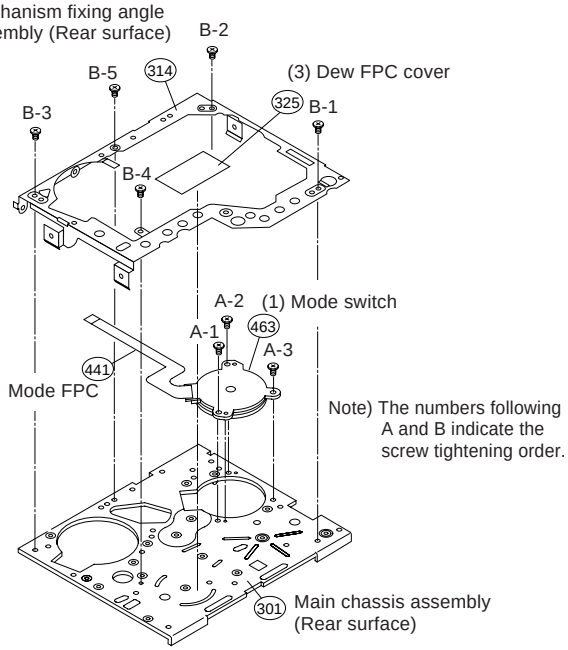
8-5-1. Reassembly in side of the main chassis.

Note) Numbers before part names are given as a guide to the order of assembly.
As for greasing/oiling/cleaning places refer to the attached drawings (Grease/Oil application Fig. 1, 2).

1.

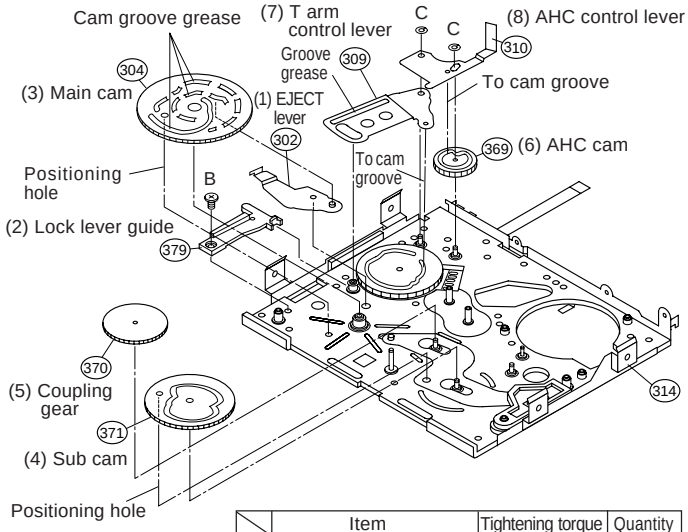


2.



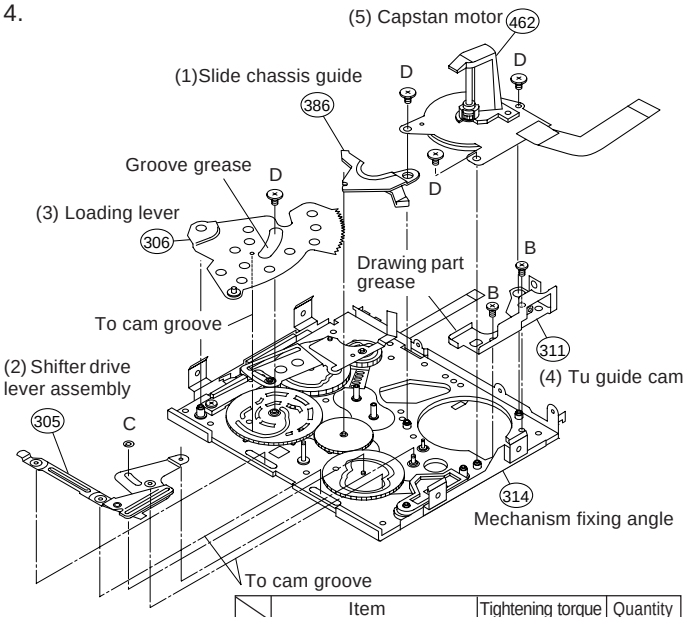
	Item	Tightening torque	Quantity
A	S Tight · M1.4 x L3	70mN·m	3
B	S Tight · M1.4 x L2	70mN·m	5

3.



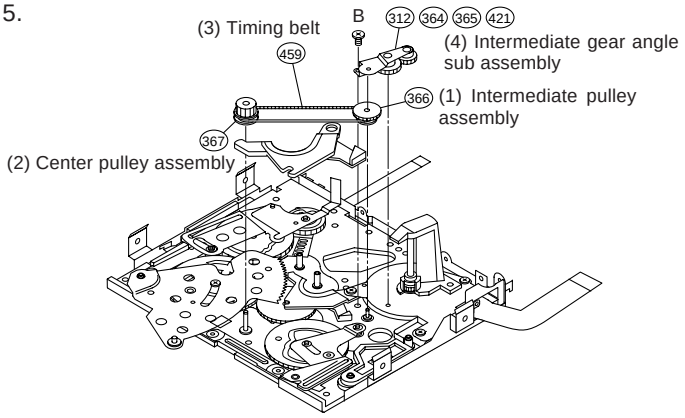
	Item	Tightening torque	Quantity
B	S Tight · M1.4 x L2	70mN·m	1
C	CWø1.2-ø3.0-t0.25	————	2

4.



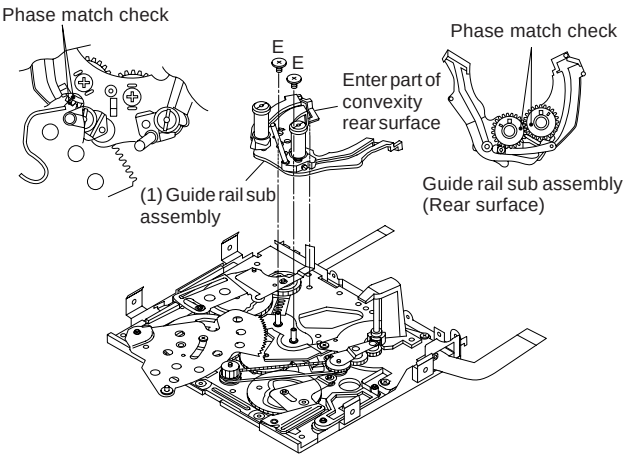
	Item	Tightening torque	Quantity
B	S Tight · M1.4 x L2	70mN·m	2
C	CWø1.2-ø3.0-t0.25	————	1
D	Special screw · M1.4 x L1.6	40mN·m	4

5.



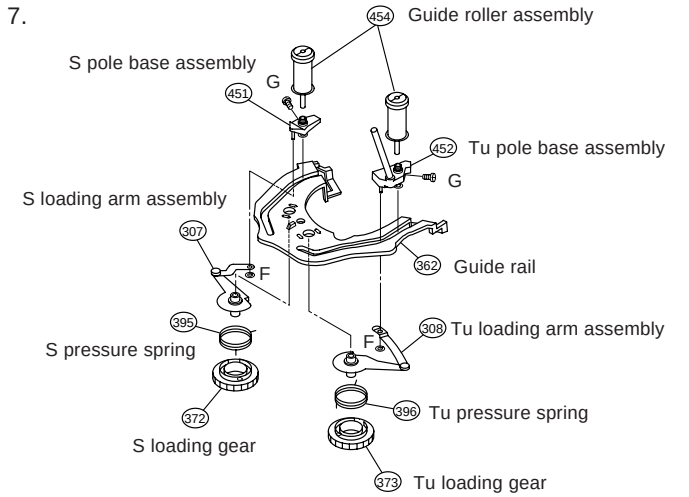
	Item	Tightening torque	Quantity
B	S Tight · M1.4 x L2	70mN·m	1

6.



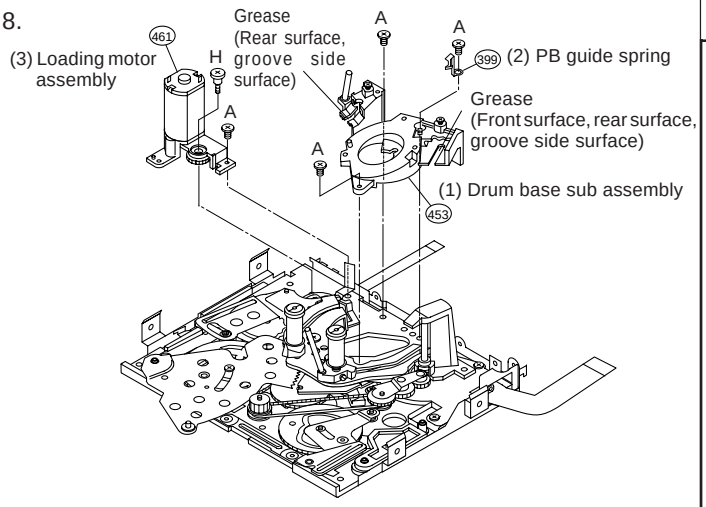
	Item	Tightening torque	Quantity
E	Special screw · M1.4 x L1.5	40mN·m	2

7.



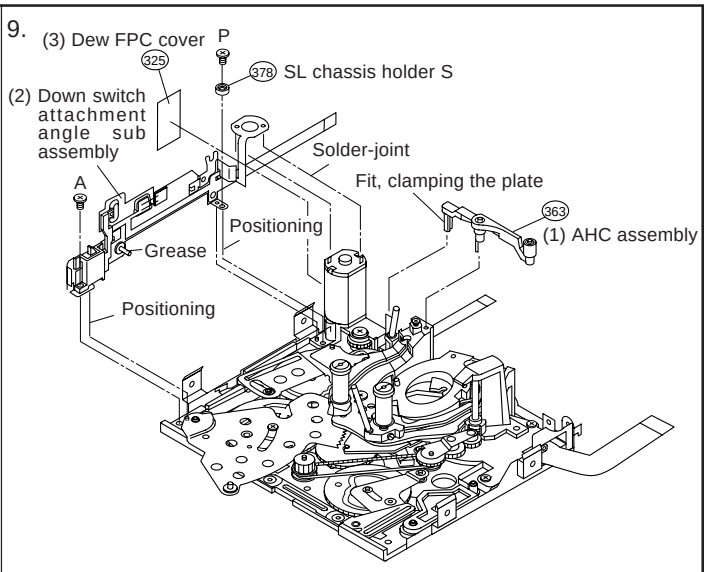
	Item	Tightening torque	Quantity
F	◎ CWø0.7-ø2.2-t0.25	————	2
G	Special screw · M1.2 x L1.8	5mN·m (Tentative tightening)	2

8.



	Item	Tightening torque	Quantity
A	S Tight · M1.4 x L3	70mN·m	4
H	Special screw with step· M1.4 x L6.25	70mN·m	1

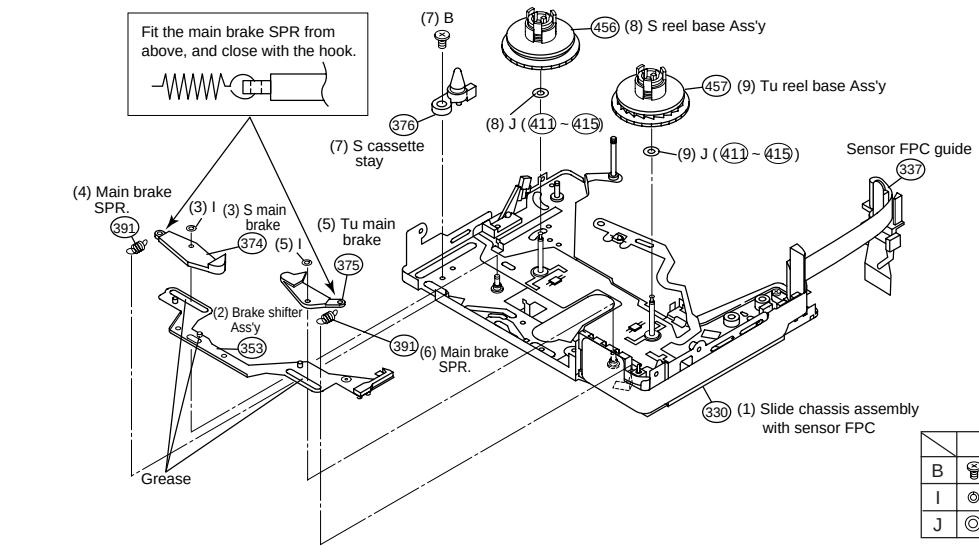
9.



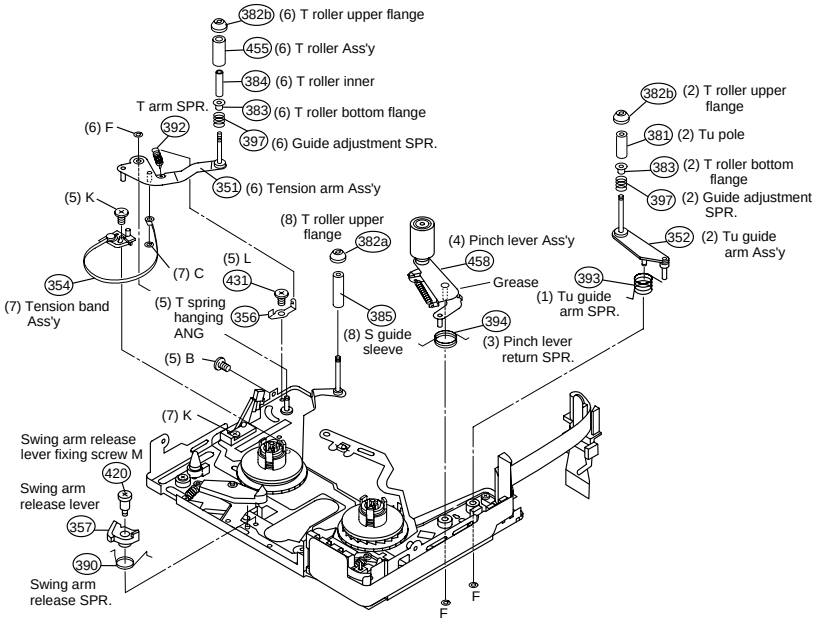
	Item	Tightening torque	Quantity
A	S Tight · M1.4 x L3	70mN·m	1
P	S Tight · M1.4 x L4	70mN·m	1

8-5-2. Reassembly in side of the Slide chassis.

Note) Numbers before part names are given as a guide to the order of assembly.
As for greasing/oiling/cleaning places refer to the attached drawings (Grease/Oil application Fig. 3, 4).



	Item	Tightening torque	Quantity
B	S Tight · M1.4 x L2	40mN·m	1
I	◎ CWø0.7-ø1.8-t0.1	————	2
J	◎ Wø1.2-ø2.5-t0.3	————	2

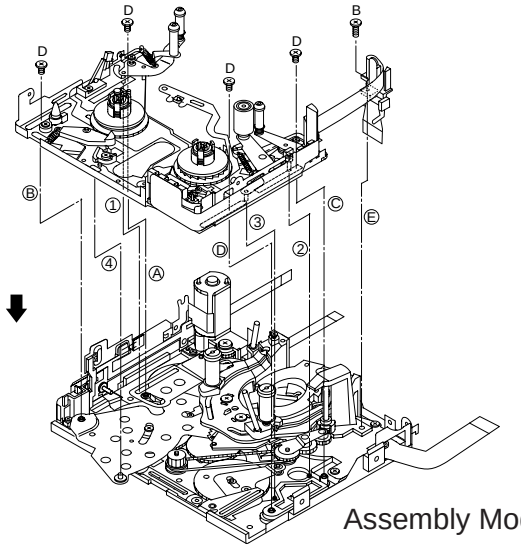


Note1) Be careful not to scratch or dent in the parts (381, 382, 383, 384, and 455), be careful not to deform the tension band in handling it.
Note2) Be careful not to deform to tightening the 382a coat the Screw lock to the point of shaft.

	Item	Tightening torque	Quantity
B	S Tight · M1.4 x L2	———	1
C	CWø1.2-ø3-t0.25	———	1
F	CWø0.7-ø2.2-t0.25	———	3
L	Type 2 minuteness · M1.4 x L1	40mN·m	1
K	Special head screw · M1.4 x L2	40mN·m	2
M	Special screw with step· M1.4 x L1	40mN·m	1

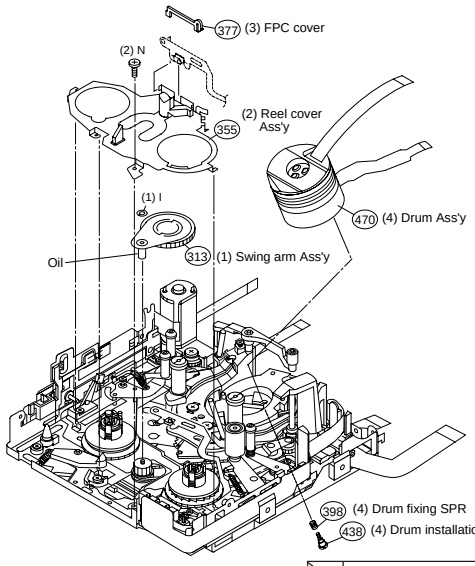
8-5-3. Main chassis assembly and slide chassis assembly assembling method

(1) Set the L/S mode (see the figure below).
(2) Insert the slide chassis side operation pins (① tension arm, ② Tu guide arm, ③ pinch lever) in the position shown below at the main chassis side, move the slide chassis in the arrow direction, using Ⓐ to Ⓔ as guides, insert the loading lever operation pin into the groove of slide chassis, and install with the 4 screws.



Assembly Mode

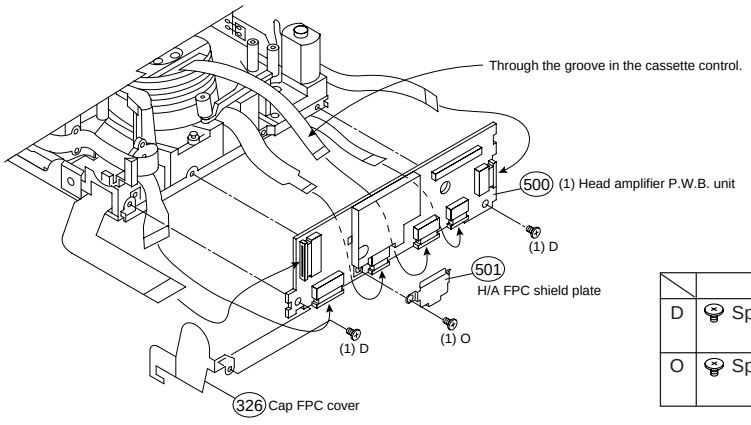
	Item	Tightening torque	Quantity
B	S Tight · M1.4 x L2	40mN·m	1
D	Special screw · M1.4 x L1.6	40mN·m	4



* 438 Tightening torque 70 ± 7mN·m (0.7 ± 0.07kg·cm)

- Numbers before part names are given as a guide to the order of assembly.
- When treating the sensor FPC wire, pay attention to the part A shown in Fig. 6.
- Oil application place is shown in Fig. 5.

	Item	Tightening torque	Quantity
I	CWø0.7-ø1.8-t0.1	———	1
N	Type 1 minuteness · M1.4 x L1	40mN·m	1



	Item	Tightening torque	Quantity
D	Special screw · M1.4 x L1.6	40mN·m	2
O	Special screw · M1.4 x L2	40mN·m	1

GREASE/OIL APPLICATION

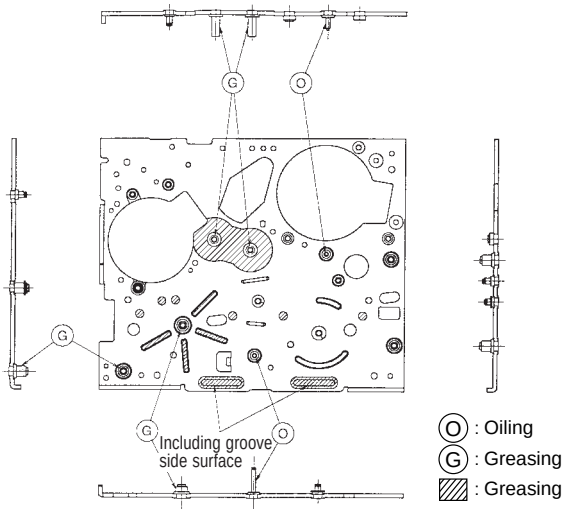


Fig. 1. Side of the main chassis

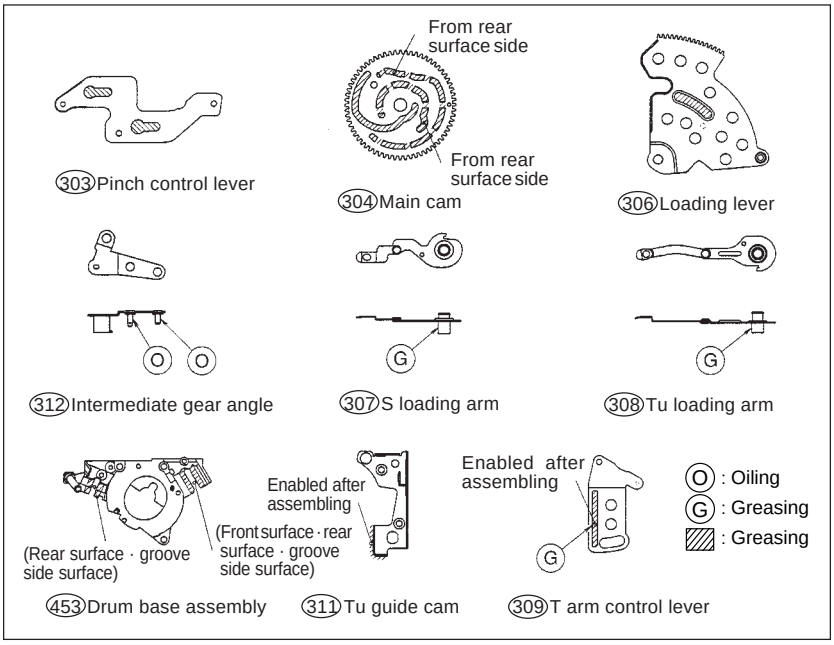

From rear surface side
From rear surface side
303 Pinch control lever
304 Main cam
306 Loading lever
312 Intermediate gear angle
307 S loading arm
308 Tu loading arm
(Rear surface · groove side surface)
Enabled after assembling
(Front surface · rear surface · groove side surface)
Enabled after assembling
O : Oiling
G : Greasing
: Greasing
453 Drum base assembly
311 Tu guide cam
309 T arm control lever

Fig. 2. Side of the main chassis

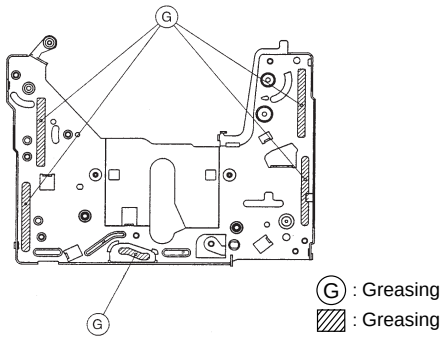


Fig. 3. Side of the slide chassis

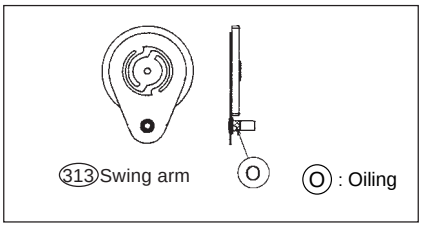


Fig. 5. After joining the main chassis and slide chassis

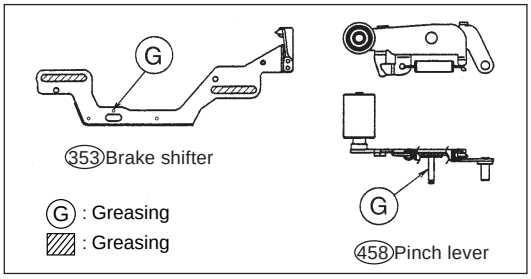


Fig. 4. Side of the slide chassis

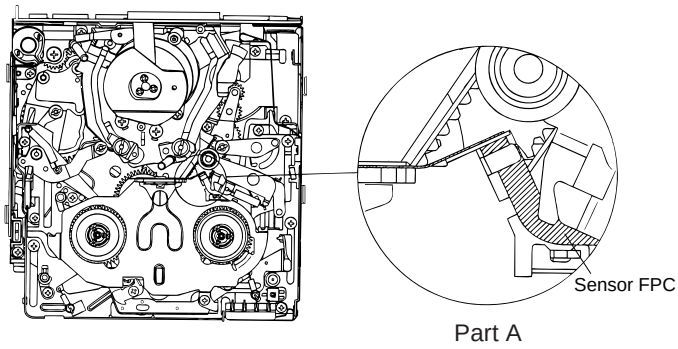


Fig. 6. Sensor FPC wiring

8-6. Removing the cassette

(1) Apply DC3V to the loading motor unload slightly.
(2) After the tape is slackened, turn the rotor (lower side of mechanism) of capstan motor to tighten the tape. (Arrow direction, Fig. 1)
(3) Repeat the operations (1) and (2). After the pole base has been completely unloaded, ascertain that the tape is not loose.
(4) Finally apply again DC3V to the loading motor, so that the cassette controller ejects.
(5) Take out the cassette.

Note) DC3V is applied to the loading motor as shown below. Then, the mechanism moves in the unloading direction.

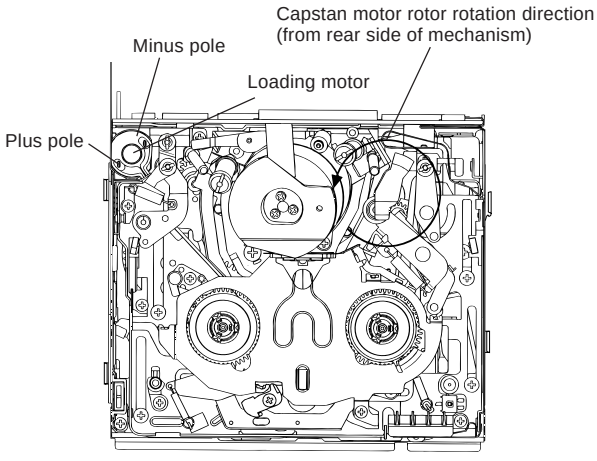


Fig. 1

9. ADJUSTING THE ELECTRICAL CIRCUITS

Before starting the electric circuit adjustment

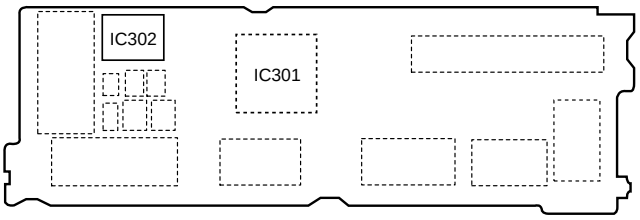
- The adjustment methods described herein are used, in most cases, when the expendable mechanical parts, including the video head, have been replaced, at which time the electrical circuits need to be readjusted. Before adjusting the electrical circuits, make sure that the mechanism works properly (i.e., the mechanism is properly adjusted). Incase of the occurrence of any problem to the electrical circuits, be sure to use the specified measuring instruments to locate the area to which the problem is occurring, and then take the necessary action, including repair, replacement or adjustment, exactly as instructed in the electrical adjustment methods that will follow.
  Do not attempt to make adjustments without using the proper measuring instruments.
- This machine is configured so that the electrical circuits inside its PWB unit are composed, for the most part, of high-density, small surface-mounted component parts for downsized machine body.
  To perform repair service or parts replacement, do so using a soldering iron, but in as short a time as possible; this is because surface-mounted component parts are generally so small in size and susceptible to heat, as compared with the large discrete parts used in TV sets, desk-top video decks, etc., that attempting to heat their electrodes for a longer time than is necessary with a soldering iron may result in their becoming defective.
  This applies particularly when replacing the laminated chip capacitors.
  For this purpose, ceramic soldering irons with a temperature regulator are recommended (iron tip temperature 250°C and soldering time 5 seconds or shorter).

Chip ID as per Digital Interface IEEE1394 Standard

The VL-PD3S/H/E and other models that follow are newly equipped with the digital interface function. The Digital Interface IEEE1394 Standard stipulates that each set with the digital interface function be given its specific ID number. The ID number is written on the E^2PROM of the set while it is manufactured. If the E^2PROM alone or the PWB having this E^2PROM on it has been replaced for repair purpose, it is necessary to write a new ID number again. (Note that any replacement part does not have an ID number yet.)
Accordingly, the repair engineer must obtain the new ID number.

Writing a Chip ID number as per Digital Interface IEEE1394 Standard

Head amplifier PWB



If the IC302 (E^2PROM) or the head amplifier PWB has been replaced, it is necessary to write a new ID number. (Note that any replacement part does not have an ID number yet.)
Obtain a new ID number from the service department of sales company. Take the following steps to write the ID number on the E^2PROM.

■ Manual for obtaining and handlig IEEE1394 ID number

1. Access the intranet URL for the number below.
   URL: http://www.rog.kami.sharp.co.jp/quics/e_index.html
2. Now enter User ID and Password, then click Login .
   *ID and Password should be same as for "PARTS PEICE LIST".

IEEE1394 Numbering

Please enter User ID and Password.

· UserID
· Password

Login

The VL-PD3S/H/E and other models that follow are newly equipped with the digital interface funcion.
The Digital Interface IEEE1394 Standard stipulates that each set with the digital interface funcion be given its specific ID number.
The ID number is written on the E^2PROM of the set while it is menufactured.
If the E^2PROM alone or the PWB having this E^2PROM on it has been replaced for repair purpose, it is necessary to write a new ID number again.
(Note that any replacement part code does not have an ID number yet.)

Accordingly, the repair engineer must obtain the new ID number.
If you have any question, please contact below.
ma_waki@toh.sharp.co.jp

3. Enter model number, serial number, company name and FAX, as well as your own name.
After confirmation, click OK .
For errors, click Cancel and enter correction.
Click Search and confirm your ID number (can be reactivated if number is forgotten).
<Enter> One character (English letter) per byte.

Model:	Model name (leave cut hyphens, brackets)
Serial No:	Manufaoturing number
Company/Fax. No.:	Company name/Fax No. (multi fax or public line fax).
Name:	Your name.

IEEE1394 Numbering

· A new ID number.

Please enter Model, Serial No., Company/Fax. No. and Name.

Model
Serial No.
Company/Fax. No.
Name

OK Cancel

· Search ID number allocated to you.

Search

4. For item 3 above, when you click OK . the ID number matching any address will appear.
Press that number and follow "Entering Procedures for IEEE1394 ID Numbers" as you enter the data for Viewcan.

IEEE1394 Numbering

Please use below Number.

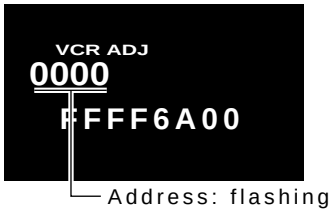
182	181	180	17F	17E
01	00	00	00	14

More Search End

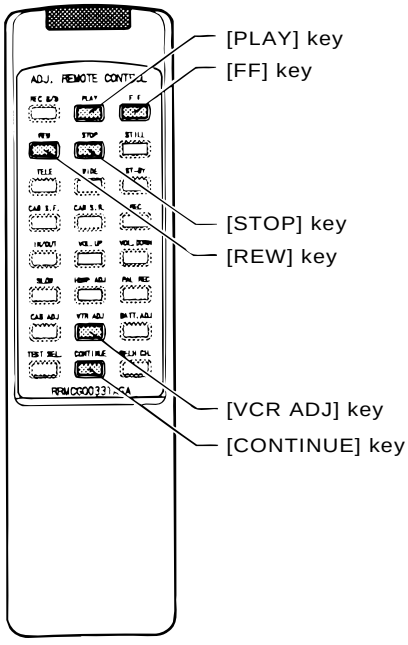
5. If you need the ID number again, click More and use the same procedure.
Click End when you are finished.

■ Procedures for Entering IEEE1394 Numbers

1. Set the power switch to the "VCR" position.
2. Press "CONTINUE" on the adjustment remote control, then press "VCR ADJ" and the address you chose will appear on the LCD monitor.



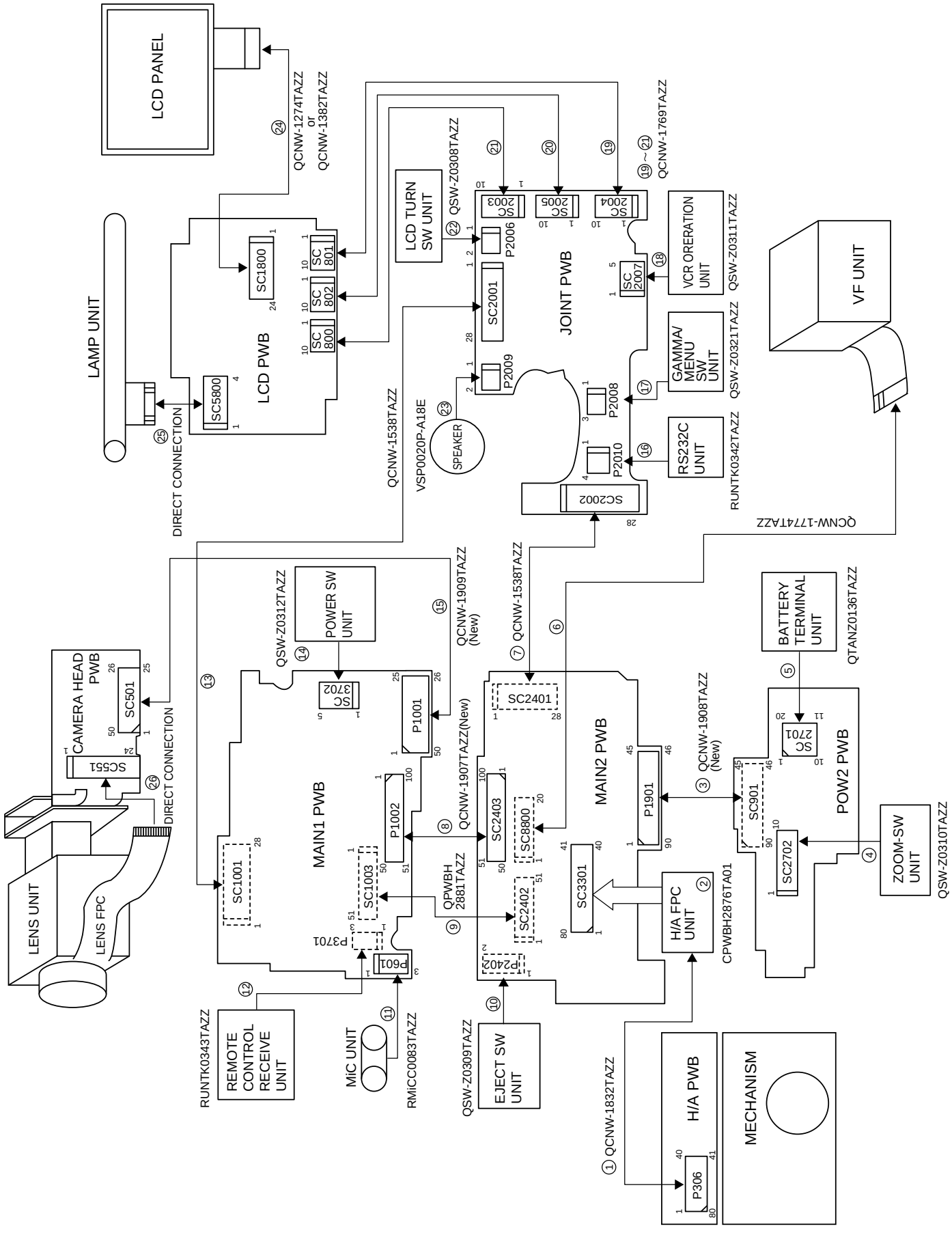
3. With "FF" or "REW" the desired address will appear.
Set with "PLAY" and data entry will show.



ADJ. REMOTE CONTROL
RRMCG 0033 TASA

4. With "FF" or "REW" the ID number (obtained through the Intranet) for any address wil appear. Set with "PLAY".
5. Press "STOP" and the address selection will appear. Then you can enter your ID number in order under the given address digits (182, 181, 180, 17F, 17E).
6. Set the power switch to the "OFF" position. Now the writing is complete.

VL-PD3S/H/E Service jig configuration

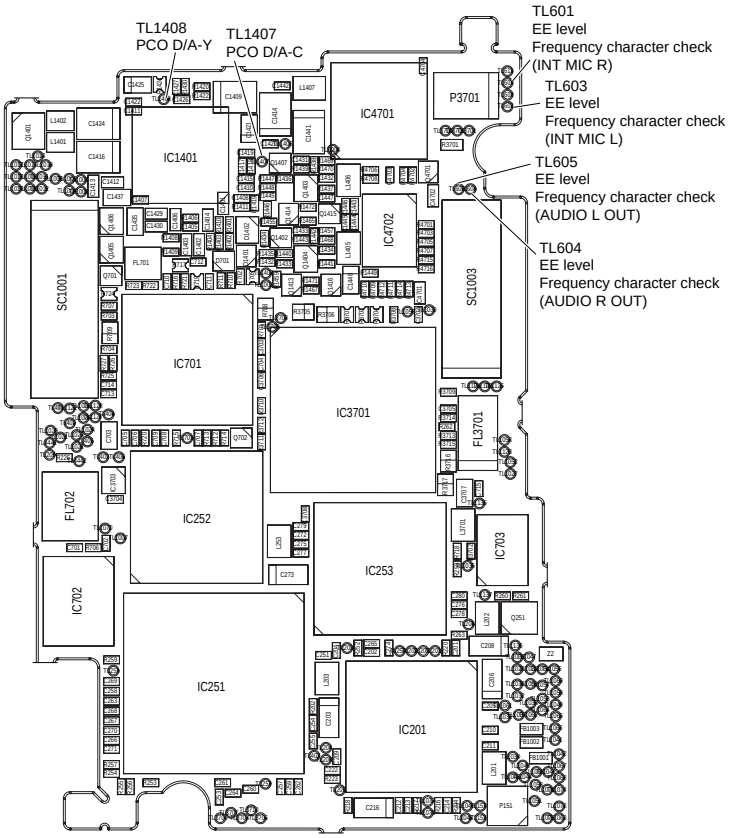


VL-PD3S/H/E Specifications of service jigs

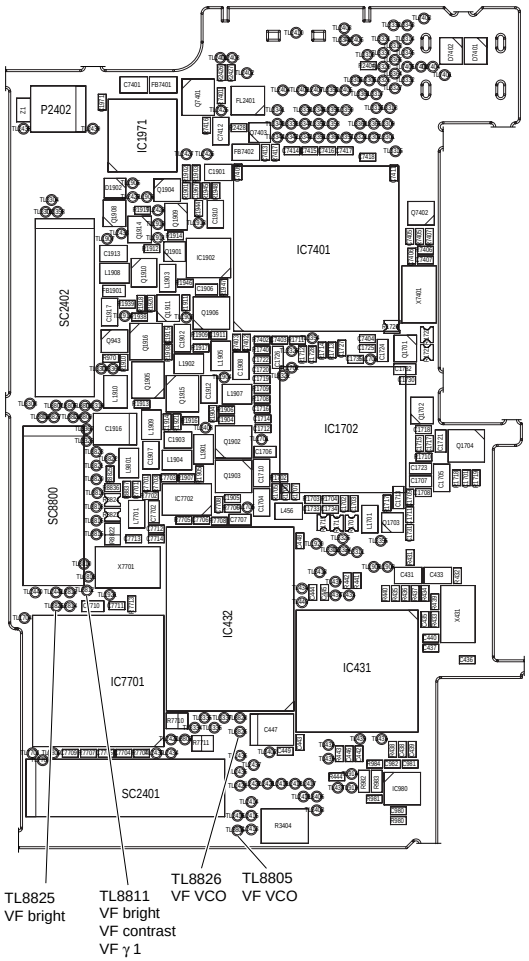
No.	Connection section	Connector REF. No.	No. of pins	New or Continuation	Part cord	Price code
1	H/A PWB-H/A FPC	P306-	80B-B	C	QCNW-1832TAZZ	BV
2	H/A FPC-MAIN2	-SC3301	80B-B		CPWBH2876TA01's Unit use	AS
3	POW2-MAIN2	SC901-P1901	90B-B	N	QCNW-1908TAZZ	BX
4	POW2-ZOOM SW	SC2702-			QSW-Z0310TAZZ's Unit use	AT
5	POW2-BATTERY TERMINAL	SC2701⇐	20B-B		QTANZ0136TAZZ's Unit use	AR
6	MAIN2-VF	SC8800⇐	20	C	QCNW-1774TAZZ	BH
7	MAIN2-JOINT	SC2401-SC2002	28	C	QCNW-1538TAZZ	BC
8	MAIN2-MAIN1	SC2403-P1002	100B-B	N	QCNW-1907TAZZ	BY
9	MAIN2-MAIN1	SC2402-SC1003	51		QPWBH2881TAZZ's Unit use	AF
10	MAIN2-EJECT SW	P2402⇐	2		QSW-Z0309TAZZ's Unit use	AG
11	MAIN1-MIC	P601⇐	3		RMICC0083TAZZ's Unit use	AR
12	MAIN1-REMOTE CONTROL RECEIVER	P3701⇐	3		RUNTK0343TAZZ's Unit use	AM
13	MAIN1-JOINT	SC1001-SC2001	28	C	QCNW-1538TAZZ	BC
14	MAIN1-POWER SW	SC3702⇐	5		QSW-Z0312TAZZ's Unit use	AR
15	MAIN1-CAM HEAD	P1001-SC501	50B-B	N	QCNW-1909TAZZ	BT
16	JOINT-RS232C	P2010⇐	4		RUNTK0342TAZZ's Unit use	AL
17	JOINT-GAMMA/MENU SW	P2008⇐	3		QSW-Z0321TAZZ's Unit use	AK
18	JOINT-VCR OPERATION	SC2007⇐	5		QSW-Z0311TAZZ's Unit use	AT
19	JOINT-LCD	SC2004-SC801	10	C	QCNW-1769TAZZ	BF
20	JOINT-LCD	SC2005-SC802	10	C	QCNW-1769TAZZ	BF
21	JOINT-LCD	SC2003-SC800	10	C	QCNW-1769TAZZ	BF
22	JOINT-LCD TURN SW	P2006⇐	2		QSW-Z0308TAZZ's Unit use	AG
23	JOINT-SPEAKER	P2009⇐	2		VSP0020P-A18E's Unit use	AL
24	LCD-LCD PANEL	SC1800-Panel	24	C	QCNW-1274TAZZ or QCNW-1382TAZZ	AZ BD
25	LCD-RAMP UNIT	SC5800⇐	4		Direct connection : Contion high tention	
26	LENS UNIT-CAMERA HEAD	LENS FPC-SC551	24		Direct connection	

[TEST POINT]

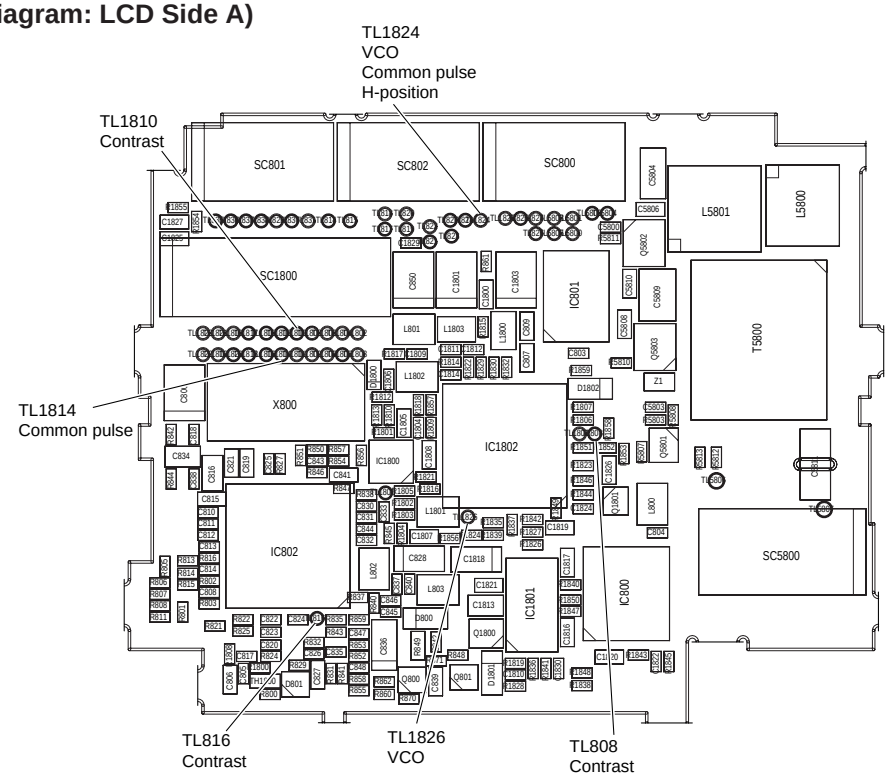
(Wiring board diagram: Main1 Side A)



(Wiring board diagram: Main2 Side A)



(Wiring board diagram: LCD Side A)



[Making adjustments]
Adjusting the servo system controller and related parts
1. Setting the system codes

Replacement of IC703 E²PROM requires the following data to be set in this order.

[Procedure]

Set the unit to the VCR mode and set the data for each address.

Code	1. Model code		2. Destination code			3. Specifications code		4. Menu selection code		5. Software switching code		6. Shutdown setting		7. Calendar switching code	
Address	01	09		02	0A	03	0B	04	0C	05	0D	06	0E	07	0F
Data	00	FF	PD3S: PD3H: PD3E:	0A 0D 0B	F5 F2 F4	10	EF	00	FF	00	FF	9B	64	98	67

When replacing the IC703 and IC302 E²PROM, first make the following settings and then start the adjustments.

(1) Electromagnetic conversion

Address	27	28	2B	35	*105
Data	40	90	C0	58	80

(2) The others

Address	5B
Data	F6

* The address uses only when replacing the IC302.

• Adjustment with automatic machine

Mode	VCR ADJ mode
Procedure	1) Using the 12 command, set the VCR adjustment mode. 2) Using the 20 command, give the E²PROM Write permission. 3) Set the system code with the 22 command for each type. 4) Using the command, set write inhibition. 5) Using the command, cancel the adjustment mode.
Examples	• During E²PROM (IC703) replacement.

• Manual adjustment

Mode	VCR ADJ mode
Procedure	Set the VCR adjustment mode, and set data of each address. 1) Set the CAM/OFF/VCR selection switch to VCR. 2) Press “CONTINUE” → ”VCR adjustment” on the remote controller to set the VCR adjustment mode. (At this time an indication “VCR ADJ” appears at the left upper side.) Enter a setting corresponding to the address. <Setting method> 3) Adjust the address by moving up and down the blinking numeral with the FF and REW key, and fix the address by pressing the PB key. 4) Adjust to the setting by moving up and down the blinking numeral with the FF or REW key, and set data by pressing the PB key. 5) Press the STOP key to set the address set state. 6) Repeat the operations 3), 4) and 5) as much as input addresses. After completion of input of all items hold down the STOP key for about 3 seconds to cancel the VCR adjustment mode. 7) Set the CAM/OFF/VCR selection switch to OFF.
Examples	• During E²PROM (IC703) replacement.

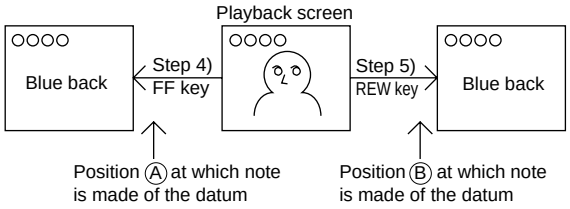
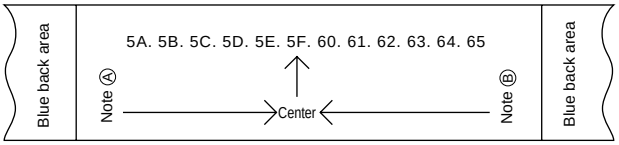
2. HSWP adjustment

Mode	VCR ADJ mode
Procedure	1) Play back the alignment tape in the video mode. 2) Press the "CONTINUE" and "HSWP ADJ" keys on the adjustment remote control in this order. → This executes the HSWP adjustment. When the adjustment is successful, the LCD lights up [OK] and the cassette is automatically ejected. If not properly adjusted, the LCD lights up [HSWP].
Examples	• During mechanism replacement. • During E²PROM replacement (IC302 inside the head amplifier circuit board).

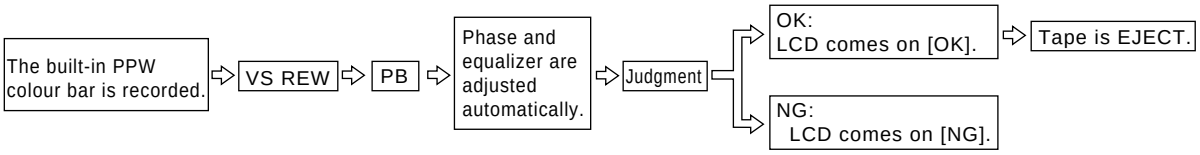
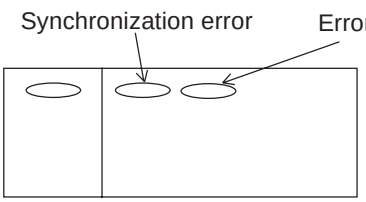
ADJUSTING THE ELECTROMAGNETIC CONVERSION CIRCUIT SYSTEM

Note:
During the adjustment of the electromagnetic conversion circuit system, keep R3404 out of operation.

1. PLL VCO adjustment

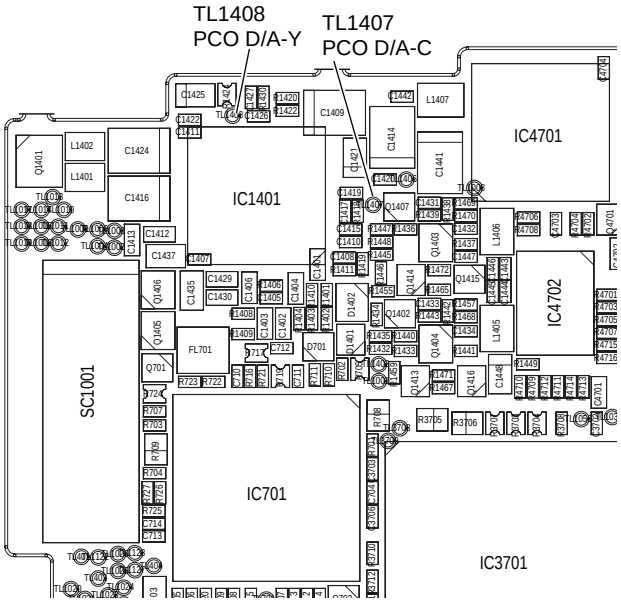
Mode	VCR ADJ mode
Procedure	1) Playback the alignment tape (or a self-recorded tape). 2) Call the adjustment mode (V-ADJ). 3) Set the address to "2C", and call the data. 4) Using the FF key, vary the data that has been called until the playback image screen changes to the blue back screen. Then use the REW key to vary the data backward until the data point is found where the screen starts to switch from the blue back to the playback image. At this time, take note of the data obtained at this point. 5) As in the above step 4), vary the data that has been called - this time using the REW key - until the playback image screen changes to the blue back screen. Then use the FF key to vary the data backward until the data point is found where the screen starts to switch from the blue back to the playback image. At this time, take note of the data obtained at the point.  6) Calculate the data taken note of at the points Ⓐ and Ⓑ to find the center of these data, and shift to and determine the central data by using the FF or REW key. **Example:** If the data taken note of at points Ⓐ and Ⓑ are 5A and 65, respectively:  The central data is set to "5F".
Examples	• During Circuit board (Main) replacement. • During E^2PROM replacement.

2. Phase and equalizer adjustment → (Performed in the VCR mode)

Mode	VCR ADJ mode
Procedure	1) Load a self-recorded tape into the deck. 2) After playback for 3 minutes, select the test mode 0F using the remote control for adjustment to start the automatic adjustment. (The following sequence is automatically performed.)  3) Error rate check Select and fix the TEST MODE 0C on the adjustment remote control. 4) Manual adjustment method (video adjustment mode) * Perform this adjustment with the self-recording/playback in the LP mode. For phase, vary the data for the address 2B, and for equalizer, vary the data for the address 27, to set the error rate to the minimum.  Synchronization error 20 or less Error rate 200 or less (SP Mode) 330 or less (LP Mode)
Examples	• During mechanism replacement. • During circuit board (Main) replacement. • During E^2PROM replacement.

ADJUSTING THE VIDEO I/O CIRCUIT SYSTEM

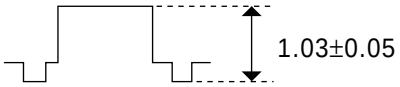
(Wiring board diagram: Main1 Side A)



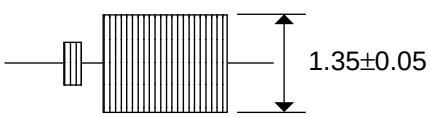
1. I/O Filter adjustment

Mode	Colour bar input EE mode
Procedure	1) Call the adjustment mode (V-ADJ). 2) Set the address to "2D", and call the date. 3) Set the date to "6C".
Examples	• During E^2PROM replacement.

2. PCO D/A-Y adjustment

Test point	TL1408 (connected to oscilloscope)
Mode	EE mode for any given video signal
Procedure	1) Call the adjustment mode (V-ADJ). 2) Set the address to "22", and call the date. (100% white signal is output.) 3) Vary the date with the FF and REW keys to set the signal appearing at TL1408 to 1.03Vp-p ± 0.05. 
Examples	• During E^2PROM replacement. • During IC4453 replacement. • During IC1401 replacement. • During circuit board (Main or Sub) replacement. • During circuit boards (Main and Sub) replacement.

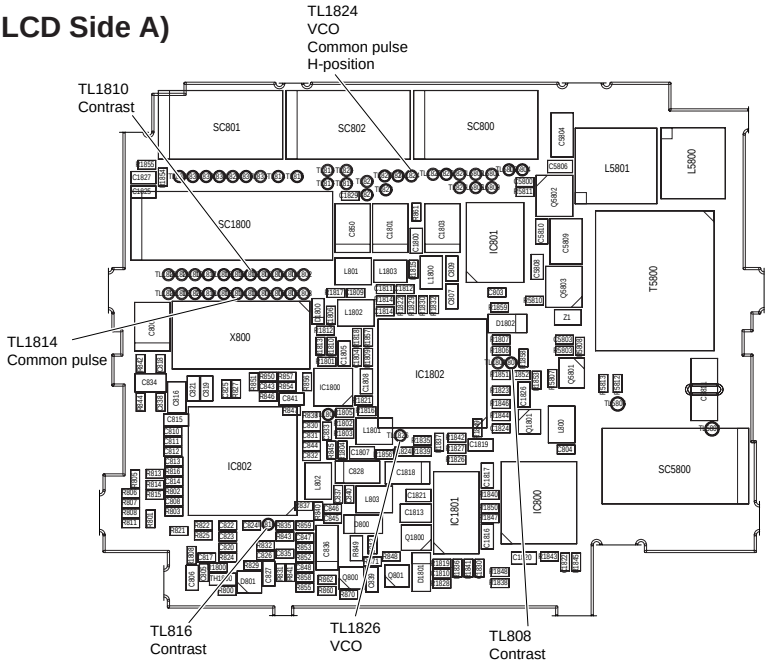
3. PCO D/A-C adjustment

Test point	TL1407
Mode	No input
Procedure	1) Call the adjustment mode (V-ADJ). 2) Set the address to "23", and call the data. 3) Vary the data with the FF and REW keys to set the signal appearing at TL1407 to 1.35 Vp-p ± 0.05. 
Examples	• During E^2PROM replacement. • During IC4453 replacement. • During IC1401 replacement. • During circuit board (Main or Sub) replacement. • During circuit boards (Main and Sub) replacement.

ADJUSTING THE LCD CIRCUIT

* To make this adjustment, set the backlight switch to the "NORMAL" position.

(Wiring board diagram: LCD Side A)

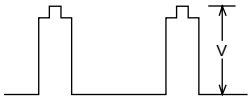


Set the following data during E²PROM (IC801) replacement.

Address	4B
Data	3C

Adjustment procedure and connecting same as the VCR section.

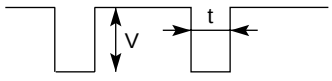
1. Contrast adjustment

Test point	TL1810 (G-OUT)
Address	81
Mode	VCR AV input
Procedure	1) Set the data of address 85 at the address 80. 2) Input white 100% as an AV input. 3) Connect TL808 to GND. (The 1H inversion stops.) 4) Connect 220 KΩ between TL816 and GND. 5) Seeing the waveform of TL1810 (G-OUT), make an adjustment between the white peak and the sync tip. 
Adjustment rating	3.0V ± 0.1V
Examples	• During E²PROM (IC801) replacement. • During LCD decoder IC (IC802) replacement.

2. VCO adjustment

Test point	TL1824 (HSY)
Address	89
Mode	VCR AV input
Procedure	1) Connect TL1826 to GND. (Free run mode) 2) Connect the Frequency counter to TL1824 and adjust it.
Adjustment rating	15.625kHz ± 100Hz
Examples	• During E²PROM (IC801) replacement.

3. H-position adjustment

Test point	TL1824
Address	84
Mode	VCR AV input
Procedure	1) Input the white 100% signal as an AV input. 2) Connect the oscilloscope to TL1824, and adjust the pulse width. 
Adjustment rating	3.3µsec ± 0.15µsec
Examples	• During E²PROM (IC801) replacement. • During LCD controller IC (IC1802) replacement.

4. COMMON PULSE adjustment

Test point	TL1814
Address	88
Mode	VCR AV input
Procedure	1) Set the data of address 85 at the address 80. 2) Input the white 100% signal as an AV input. 3) Connect the oscilloscope to TL1824, and adjust the pulse width.
Adjustment rating	6.3Vp-p ± 0.1Vp-p
Examples	• During E^2PROM (IC801) replacement. • During LCD decoder IC (IC802) replacement.

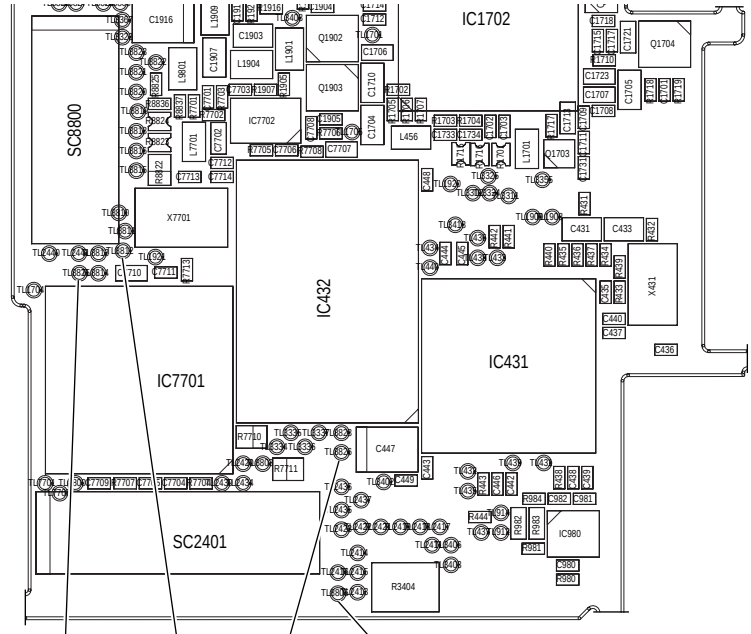
5. COM-BIAS adjustment

Test point	LCD panel daisplay surface
Address	8A
Mode	VCR AV input
Procedure	1) Input the white 40% signal as an AV input, and set data of address 85 at the address 80. 2) Set the illuminometer (TOPCON IM-3) on the LCD panel surface (do not allow entry of external light). (Shut off the external light.) 3) Connect the illuminometer to the oscilloscope. 4) Make an adjustment so as to minimize the ripple of output waveform. Response time: 0.6 sec 5) Adjust again if longitudinal stripe appears evidently. * Or set to the point where the black is settled deepest with the grey scale signal.
Adjustment rating	Minimum
Remark	Make this adjustment after 5-minute or longer aging.
Examples	• During E^2PROM (IC801) replacement. • During LCD panel replacement.

6. White Balance adjustment

Test point	LCD panel display surface
Address	82, 83
Mode	VCR AV input
Procedure	1) White fade signal input. 2) Adjust so as to get the same white screen as that of standard monitor.
Adjustment rating	Standard monitor
Remark	Make this adjustment after 5-minute or longer aging.
Examples	• During E^2PROM (IC801) replacement. • During LCD decoder IC (IC802) replacement. • During LCD panel replacement.

ADJUSTMENT OF VIEW FAR CIRCUIT

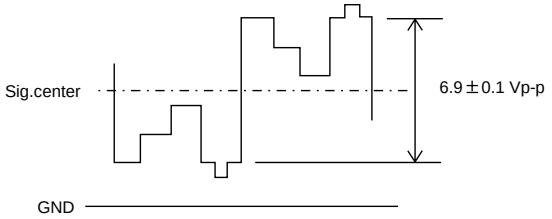


(Wiring board diagram: Main2 Side A)

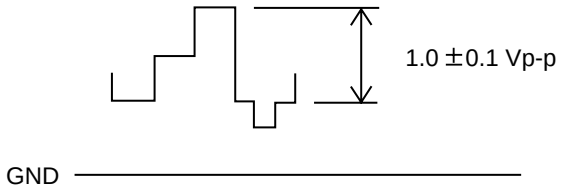
1. VF VCO adjustment

Test point	TL8805 (HSY)
Address	VCR ADJ 40
Mode	VCR AV input
Procedure	1) Connect TL8826 to 3V. 2) Connect TL8805 to the frequency counter, and adjust to the adjustment standard value at address 40. 3) Open TL8826.
Adjustment rating	15.625kHz ± 100Hz
Remark	————
Examples	• During IC703 (E^2PROM) replacement. • During IC8800 replacement.

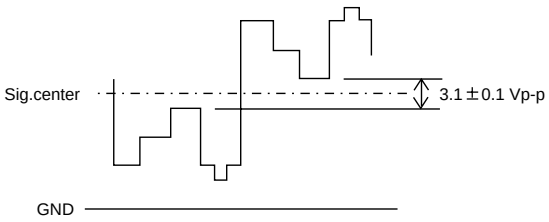
2. VF bright adjustment

Test point	TL8811 (VG)
Address	VCR ADJ 46
Mode	VCR AV input
Procedure	1) The input signal must be 3-step wave. 2) Connect TL8825 (IC8800 pin 53) to GND. 3) Adjust the pedestal interval of waveform of TL8811 to the specified level.
Adjustment rating	6.9 ± 0.1Vp-p 
Remark	————
Examples	• During IC703(E^2PROM) replacement. • During IC8800 replacement.

3. VF contrast adjustment

Test point	TL8811 (VG)
Address	VCR ADJ 45
Mode	VCR AV input
Procedure	1) The input signal must be 3-step wave. 2) Connect TL8825 (IC8800 pin 53) to GND. 3) Change the address 41/42 to 00. 4) Adjust the pedestal -100% interval of wave form of TL8811 to the specified level.
Adjustment rating	1.0 ± 0.1Vp-p 
Remark	———
Examples	• During E²PROM (IC703) replacement. • During IC8800 replacement.

4. VF γ 1 adjustment

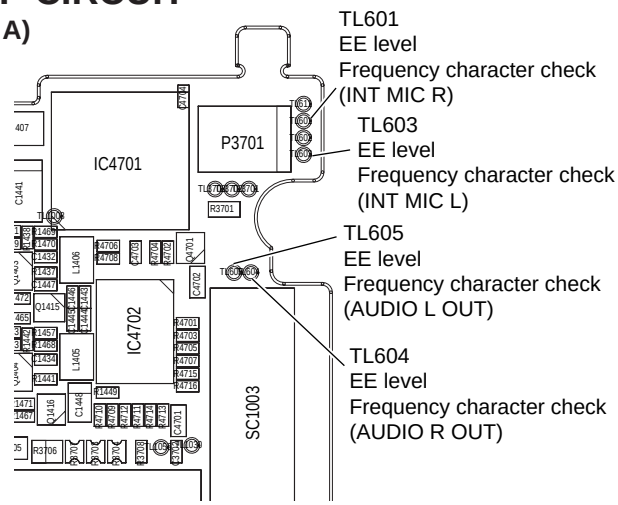
Test point	TL8811 (VG)
Address	VCR ADJ 42
Mode	VCR AV input
Procedure	1) The input signal must be 3-step wave. 2) Connect TL8825 (IC8800 pin 53) to GND. 3) Adjust the pedestal -100% interval of wave form of TL8811 to the specified level.
Adjustment rating	3.1 ± 0.1Vp-p 
Remark	———
Examples	• During IC703 (E²PROM) replacement. • During IC8800 replacement.

5. VF sub bright R/B adjustment

Test point	View Far panel area
Address	VCR ADJ 44 (R) VCR ADJ 43 (B)
Mode	VCR AV input
Procedure	1) Feed 40% white signal to the AV input jacks and the standard monitor. 2) Adjust the tone of the colour with the VCR ADJ addresses 43 and 44 until it becomes the same as that of the standard monitor.
Adjustment rating	———
Remark	Make this adjustment after 5-minute or longer aging.
Examples	• During IC703 (E²PROM) replacement. • During IC8800 replacement.

ADJUSTING THE MIC AMP CIRCUIT

(Wiring board diagram: Main1 Side A)



1. EE level check

Measuring instrument	Digital voltmeter
Test point	TL605, TL604
Mode	P-ON (CAM)
Adjustment rating	-13.5dBs ± 3dB
Test signal	1kHz -54dBs sine wave
Procedure	1) Input 1kHz, -54dBs sine wave into TL603(INT MIC L), TL601(INT MIC R). 2) Make sure that the signal level of TL605 Audio-L out and TL604 Audio-R out is within the standard limits.

2. Frequency character check

Measuring instrument	Digital voltmeter
Test point	TL605, TL604
Mode	P-ON (CAM)
Adjustment rating	(1kHz standard) 100Hz : -6dB ± 3dB 10kHz : +2dB ± 3dB
Test signal	100Hz, 10kHz -54dBs sine wave
Procedure	1) Input 100Hz, -54dBs sine wave and then 10kHz, -54dBs sine wave into TL603 (INT MIC L) and TL601 (INT MIC R). 2) At this time make sure that the signal level of TL605 Audio-L out and TL604 Audio-R out is within the standard limit (1kHz standard).

DV INTERFACE ID SETTING

1. DV interface ID setting

Address	17E, 17F, 180, 181, 182
Mode	VCR
Adjustment rating	*1*2, *3*4, 0*5, 00, 01
Procedure	1) Using the 12 command, set the VCR adjustment mode. 2) Using the 20 command, give the E^2PROM Write permission. 3) Set the ID numbers as follows. High-order 20 bit Low-order 20 bit 01000h 41000h~4FFFFh For Line 1 (for 61,440 sets) 01000h 50000h~5FFFFh For Line 2 (for 65,535 sets) 01000h 60000h~6FFFFh For Line 3 (for 65,535 sets) 01000h 00000h~00FFFh Service and repair parts (for 4,095 sets) The high-order 20 bit is set with 01000h fixed. For low-order 20 bit, individual ID number is set for each set within the limits specified above for each production line. 4) Using the command, set Write inhibition. 5) Using the command, cancel the adjustment mode. Note: Low-order 20 bit *5*4*3*2*1h

9-2. Camera Section Adjustments

9-2-1. Camera section service

(1) Camera adjustment is performed after the set has been completed.

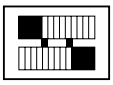
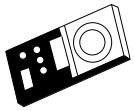
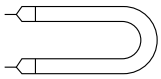
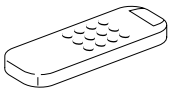
(2) Subjects, measuring instruments and jigs needed for camera section service and adjustments

• Gray scale chart • Color bar chart • Oscilloscope • Digital voltmeter • Vector scope • Halogen lamp: 2 pcs.	• Frequency counter • Illumination meter • Color temperature meter • Color temperature conversion filter HOYA "LB-165" • Color video monitor	• Video output cable • AC adapter • Extension cables • Remote control unit for servicing

9-2-2. List of camera jigs and tools

Configuration

<Note: The entries of list> 1. Name 2. Part No. 3. Code

 1. Gray scale chart (390 x 520 mm) 2. JiGCHART-1 3. CP	 1. Color bar chart (240 x 320 mm) 2. JiGCHART-4 3. DA	 1. Illumination meter (0 to 3000 lux) 2. JiGMETER-1 3. CT	 1. Color temperature meter (1600 to 400000 degrees K) 2. JiGMETER-2 3. EL
1. Color temperature conversion filter (3200 degrees K ⇒ 6800 degrees K) 2. JiGHOYA-LB165 3. BN	 1. PC plate connector drawer 2. JiGTH-SS10 3. AW	 1. Remote control until for servicing 2. RRMCG0033TASA 3. BT	

9-2-3. Adjusting the camera unit

(1) Preparations for adjustments and items to be checked

1) Set up the light box so that the entire pattern is evenly lit. Set the colour temperature to 3200°K.
2) Use test patterns that are not dirty nor discoloured.
3) If the electrical circuitry gets in trouble, be sure to pinpoint the trouble spot with a measuring instrument and repair or replace the defective part.

(2) Remote control for servicing RRMCG0033TASA

To adjust the camera section of this machine, the remote control for servicing (RRMCG0033TASA) is used. The adjustment is made in such a manner that the remote control writes necessary data by way of the microprocessor to the specific addresses on the E^2PROM (IC703 and the ROM on the lens unit).

1) To adjust the camera:
Press the "CONTINUE" key first and then the "CAM ADJ" key.
This will show

CAM ADJ
□□□□

on the LCD screen, thereby having the camera unit ready for the adjustments.

2) Descriptions of the displays

CAM □□□□ ADJ □□□□
(Address value) (Data value)

(Indicates the camera adjustment mode.)

* The address values for this machine range from 0000 to 05FF.
* The data include byte data (the last two digits are effective) and 2-byte data (the last three digits are effective).

3) Descriptions of the remote control keys

"FF" key: Increases the address and data values.
"REW" key: Decreases the address and data values.
"PLAY" key: Specifies addresses and calls the data.
This key also fixes (i.e., writes to the E^2PROM) the data values.
"STOP" key: Clears the data to enable the selection of address.

4) Operation flow

→ FF or REW → PLAY → FF or REW → PLAY → STOP →

Address is selected and specified, with the data called. Then the called data are selected and fixed. The operation flows in this sequence.

5) When the adjustment is complete:
Press the "CONTINUE" key to let the "CAM ADJ" display disappear from the screen.
Note: Before terminating the adjustments, make sure that the adjustment mode is neither the auto-focus function adjustment mode nor the camera signal system adjustment mode (these modes are mentioned later).

- Camera unit adjustment modes
The camera unit is adjusted in two types of modes: the auto-focus function adjustment mode and the camera signal system adjustment mode.

Note: Each E^2PROM contains the adjustment item data as shown below. If it is changed, data rewriting and confirmation of latest data must be performed.
1) E^2PROM on lens unit of camera head section
Lens data, LCD drive timing data
2) IC703 on main unit
Signal system adjustment data

(3) Auto-focus function adjustment mode
- The camera unit uses a microprocessor-controlled auto-focus zoom lens.
The auto-focus circuit incorporated in this unit is designed to execute the image processing where the focusing action is done by taking advantage of the fact that the high-frequency components in the image signals increase as the focus intensifies. Moreover, to achieve high magnifying power with a small lens, the camera unit incorporates the inner focus system in which the focus is shifted by moving the master lens (rear lens) back and forth. This inner focus system is a full-range focus type by which the focus can be shifted from approximately 10 mm to the infinity. It should be noted, however, that since the closest subject distance at the telephoto end is fixed at 1.5 m, subjects in a closer range than 1.5 m at the telephoto end will be out of focus. For this reason, the unit is designed so the zoom control is automatically shifted to the wide angle side until the position is found where the subject can be focused on.

In the auto-focusing system of this until, the following constitute the important factors:
• Master lens position detection data
• Iris position detection data
• Zoom lens position detection data
These detection data are handled and stored by the microprocessor, lens by lens, into the E^2PROM.
Therefore, in the following cases, the auto-focus function adjustment is required:
• When the lens has been replaced
• When the CCD has been replaced
• When the E^2PROM (located on the lens unit or IC703) has been replaced

1) Shifting to the auto-focus function adjustment mode
Set the data for the address "05FE" to "□□01".
⇩
This makes the screen fade temporarily in white and shifts to the auto-focus function adjustment mode.

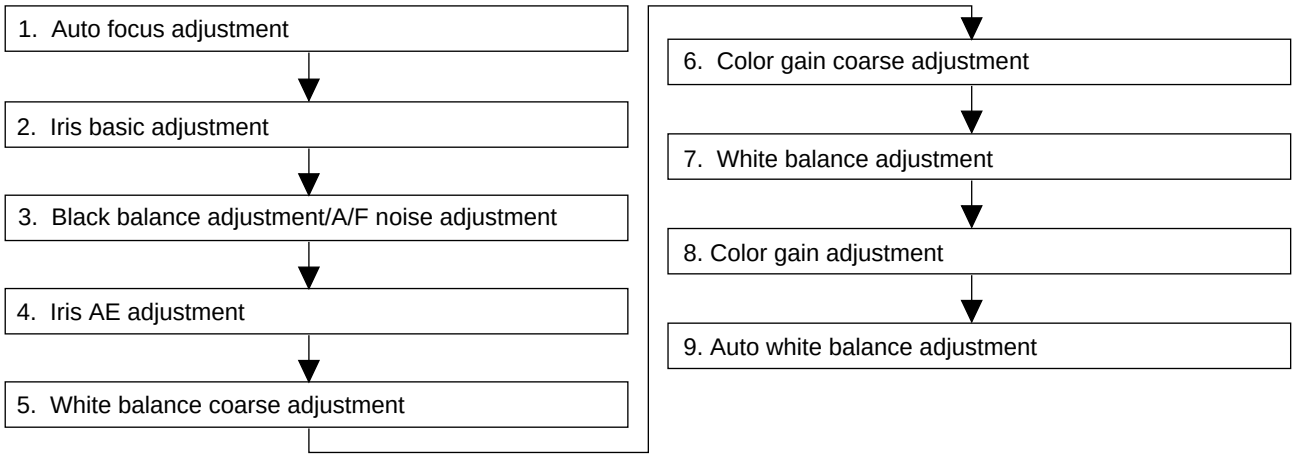
* When this adjustment mode has been shifted to, make the adjustment according to (5) Camera unit adjustment procedure.
* In this adjustment mode, the lens can not be operated.

2) Shifting to the normal operation mode
Set the data for the address "05FE" to "□□FF".
⇩
This makes the screen fade temporarily in white and shifts to the normal operation mode.
⇩
Press the "CONTINUE" key, and the "CAM ADJ" display goes out of the screen, enabling the normal operation.

(4) Camera signal system adjustment mode
In the camera signal system adjustment mode, the automatic white balance is disabled to allow for the adjustment of the camera unit. At this time, the white balance mode is fixed at the INDOORS mode and the focus mode is switched to the manual focus mode.
1) Shifting to the camera signal system adjustment mode
Set the data for the address "00B0" to "□□00".
⇩
This shifts the mode to the auto-focus function adjustment mode.
* When this adjustment mode has been shifted to, make the adjustment according to (5) Camera unit adjustment procedure.

2) Shifting to the normal operation mode
Set the data for the address "00B0" to "□□ FF".
⇩
This shifts the mode to the normal operation mode.
⇩
Press the "CONTINUE" key, and the "CAM ADJ" display goes out of the screen, enabling the normal operation.

(5) Camera unit adjustment procedure


1. Auto focus adjustment
2. Iris basic adjustment
3. Black balance adjustment/A/F noise adjustment
4. Iris AE adjustment
5. White balance coarse adjustment
6. Color gain coarse adjustment
7. White balance adjustment
8. Color gain adjustment
9. Auto white balance adjustment

* The above 1. Auto-focus function adjustment and 2. Iris basic adjustment are performed in the auto-focus function adjustment mode, whereas the other adjustments are made in the camera signal system adjustment mode.
* After completing the auto-focus adjustment mode, set the camera signal system adjustment mode. (Take care that the adjustment mode transfer address is different.)

9-2-4. Adjustment procedures

Item	Adjustment method

(1) Auto-focus adjustment

Set the unit to the auto-focus function adjustment mode and write data to the address "05FD" one after another. This executed the adjustments automatically. The items to be adjusted are as listed below. Every time an adjustment is made properly, the data "FF" is written to the address. After each adjustment, make sure that the adjustment has been made properly, and then go on to the next adjustment item.

Address	Data	Adjustment item
05FD	000C	MR censor adjustment
	0012	WIDE end adjustment
	0008	TELE end focus ∞ position adjustment
	0006	WIDE end focus ∞ position adjustment

Note 1: To adjustment of ∞ position is executed by actually picking up the image of subject. For this adjustment use the subject with clear profile.
Especially, if the adjustment of TELE end focus ∞ position is made without picking up the image of remote subject, adjustment failure may occur.
Adjustment of WIDE end focus ∞ position: 3 m or more
Adjustment of TELE end focus ∞ position: 50 m or more

Note 2: In case of ∞ position adjustment the field depth is important to ensure the adjustment accuracy. If the field depth is high, the focus becomes too stable , which may cause incorrect adjustment of ∞ position. Therefore the adjustment must be made with low field depth (with iris opened).

The iris can be opened with the high-speed shutter.
1. It returns to the normal operation mode.
2. In the normal operation mode, set the high-speed shutter mode until the iris is opened. (Refer to the operation manual.)
3. Display “CAM ADJ” with the remote control for service.
4. It shifts to the auto-focus adjustment mode.
5. Perform the ∞ position adjustment.
6. After completing the ∞ position adjustment, return the high-speed shutter mode to the normal mode.

(2) Iris basic adjustment

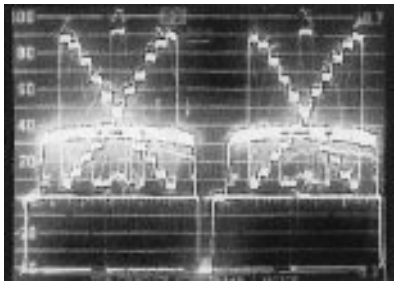
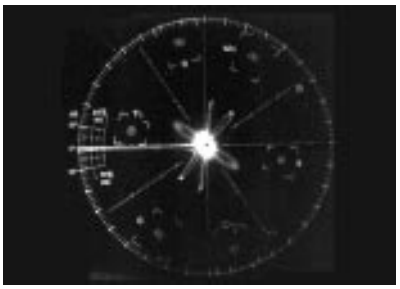
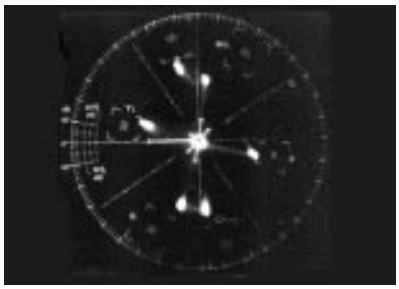
This is for adjusting the operating point of the hole element installed in the iris meter of the lens.
Set the unit to the auto-focus function adjustment mode (write the address "00B0" to, "□□ 00") and write data to the address "00B1" one after another. This executes the adjustments automatically. The items to be adjusted are as listed below. Every time an adjustment is made properly, the data "00FF" is written to the address.

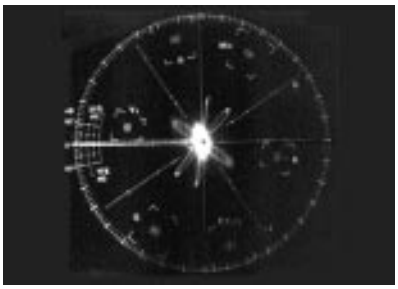
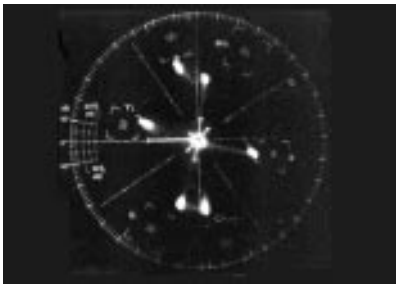
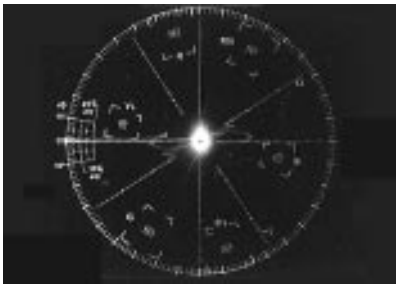
Address	Data	Adjustment item
00B1	0009	Hall offset adjustment
	000A	Iris offset adjustment
	000B	Iris close adjustment

* After completion of 1. Auto-focus adjustment, 2. Iris basic adjustment once restore the regular operation mode. Data "050F" is written in the address "01E6".

(3)Black balance adjustment/A/F noise adjustment

1) Prior to the adjustment, initialize the data for the addresses "007A", "007C", "007E", "0080", "0082", "0084". Write "FF FF" (the last two digits are effective) to all of these address.
2) In the camera signal system adjustment mode, write the data "□□ 01" to the address "00B1" This starts the adjustment automatically. When the adjustment is completed properly, the data "00FF" is written automatically.

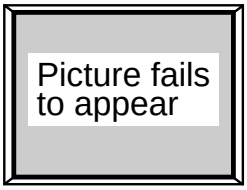
<table>
<tr><th>Item</th><th>Adjustment method</th></tr>
<tr><td>(4) Iris AE adjustment
• Measurement terminal:
S terminal luminance signal output (75 Ω termination)
• Address: "00B2" AE_CVT
• Measuring instrument:
Oscilloscope (horizontal sync)
• Object:
Grey scale
• Data variation width:
"0000" to "00FE"</td><td>(1) Write the data " 00 " to adress "0133".
(2) Video output is observed with the oscilloscope in the grey scale standard record state, the data of address "00B2" is rewritten, and the luminance signal level (not including sync signal) is adjusted to 700 ± 10mVp-p.
 
100mV/div</td></tr>
<tr><td>*A suggestions with regard to PD3S.</td><td>Before a signal system is adjusted, data of an address are changed as follows.
· Address: 13D ·Data: 00
13E 00
Then, the data which was written on each address are written.
After Signal system adjustment end, the data which was originally written on each address are written.</td></tr>
<tr><td>(5) White balance coarse adjustment
• Measurement terminal:
EE output
• Address:
"0018" CGAIN_KR_W
"001A" CGAIN_KB_W
• Measuring instrument:
Vector scope
• Object:
Grey scale
• Data variation width:
"0000" to "03FF"</td><td>(1) Indication on the vector scope is observed in the grey scale standard record state, data of address "0018" and "001A" are rewritten, and an adjustment is made so that the luminous dot is located in the position of burst ratio:
R-Y 0 ± 5%
B-Y 0 ± 5%
  </td></tr>
<tr><td>(6) Color gain coarse adjustment
• Measurement terminal:
EE output
• Address:
"012B" CGIN RYG
"012D" CGIN BYG
"0128" CMAT RYG
"0126" CMAT BYG
• Measuring instrument:
Vector scope
• Object:
Color bar chart
• Data variation width:
"0000" to "00FF"</td><td>(1) The color bar chart is imaged, and the picture angle is adjusted so as to get white level 650 mV. Indication on the vector scope is observed, the data of address "0126", "0128", "012B" and "012D" are rewritten, and setting is made so that the red and blue luminous dots are located in the following positions. The gain of vector scope must be set on 75% amplitude point on the B-Y axis.) (The red phase is adjusted at the address "0218", and the blue phase is adjusted at the address "0126".)
 
Adjustment address
Red amplitude 2.16 ± 0.1 time (burst ratio) : "012B"
Blue amplitude 1.20 ± 0.1 time (burst ratio) : "012D"
Red phase 104° ± 2° : "0128"
Blue phase 335° ± 2° : "0126"</td></tr>
</table>

<table>
<tr><th>Item</th><th>Adjustment method</th></tr>
<tr><td>(7) White balance adjustment
• Measurement terminal:
EE output
• Address:
"0018" INDOOR W/BR
"001A" INDOOR W/BR
• Measuring instrument:
Vector scope
• Object:
Grey scale
• Data variation width:
"0000" to "03FF"</td><td>(1) White balance adjustment is performed repeatedly.
  </td></tr>
<tr><td>(8) Color gain adjustment
• Measurement terminal:
EE output
• Address:
"012B" CGIN RYG
"012D" CGIN BYG
"0128" CMAT RYG
"0126" CMAT BYG
• Measuring instrument:
Vector scope
• Object:
Waveform monitor colour bar chart
• Data variation width:
"0000" to "00FF"</td><td>(1) Color gain adjustment is performed repeatedly.
 
Adjustment address
Red amplitude 2.16 ± 0.05 time (burst ratio) : "012B"
Blue amplitude 1.20 ± 0.05 time (burst ratio) : "012D"
Red phase 104° ± 1° : "0128"
Blue phase 335° ± 2° : "0126"</td></tr>
<tr><td>(9)Auto white balance adjustment
• Measurement terminal:
EE output
• Address:
"006A" OUTDOOR R
"006C" OUTDOOR B
• Measuring instrument:
Vector scope
• Object:
Grey scale
• Data variation width:
"0000" to "03FF"</td><td>(1) The color temperature conversion filter (LB165) is mounted in front of lens.
(2) Indication of vector scope is observed in the grey scale standard record state, and an adjustment is made so that the luminous dots are located in the following positions:
R-Y 0 ± 5% (burst ratio)
B-Y 0 ± 5% (burst ratio)
  </td></tr>
</table>

After completion of adjustment set the regular operation mode (the data "□□ FF" is written in the address "00B0".)
Write the data "□□ FF" to adress "0133", and power (out of battery ø adapter) ON/OFF. Remove the case of lithium with it, put back the lithium after that put into power ON/OFF.

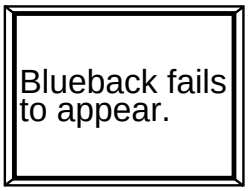
10. USEFUL TIPS (PROBLEMS DIFFER FROM THOSE FOUND ON VHS OR 8MM DECKS BECAUSE THE SIGNALS ARE DIGITALLY PROCESSED.)

Camera (EE mode)



Major circuits to be checked
- CCD
- Camera circuits (CDS, ADC, DSP)
- PPW (IC4453)
- LCD_DECODER (IC802)
- System controller (IC701)
- VIO (IC1401)

VCR (EE mode)

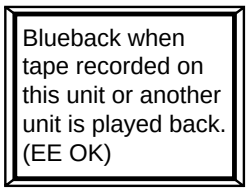


Major circuits to be checked
- Mechanical controller (IC7701)
- LCD_DECODER (IC802)
- System controller (IC701)
- Zoom (IC251)
- CLOCK GENERATOR (IC451)

Camera (REC mode)
VCR (PB mode)

Major circuits to be checked
- Zoom (IC251)
- CLOCK GENERATOR (IC451)

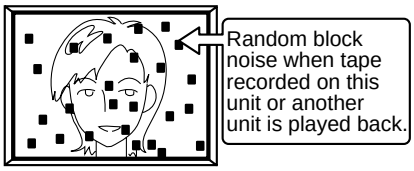
Camera (REC mode)
VCR (PB mode)



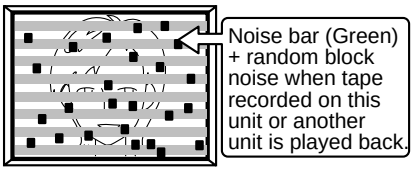
Major circuits to be checked
- PLL (IC3401)
- ATF (IC3402)
- Head amplifier (IC301)

* Dirty or defective video head

Camera (REC mode)
VCR (PB mode)



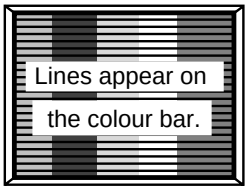
or



Major circuits to be checked
- PLL (IC3401)
- ATF (IC3402)
- Head amplifier (IC301)

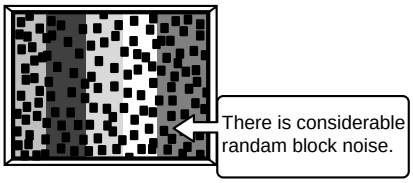
* Dirty or defective video head

VCR (PB mode) + colour bar



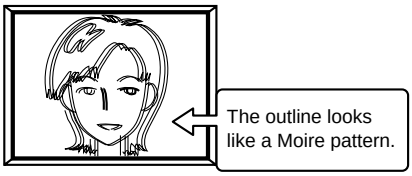
Major circuits to be checked
- Zoom (IC251)

VCR (PB mode) + colour bar



Major circuits to be checked
- Adjustment of the electromagnetic conversion circuit system.

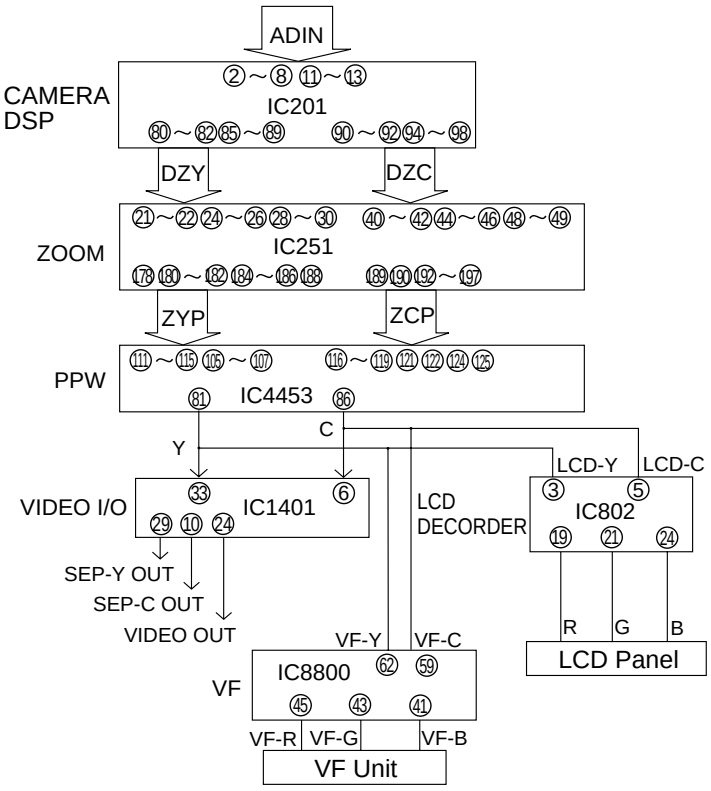
Camera (EE mode)



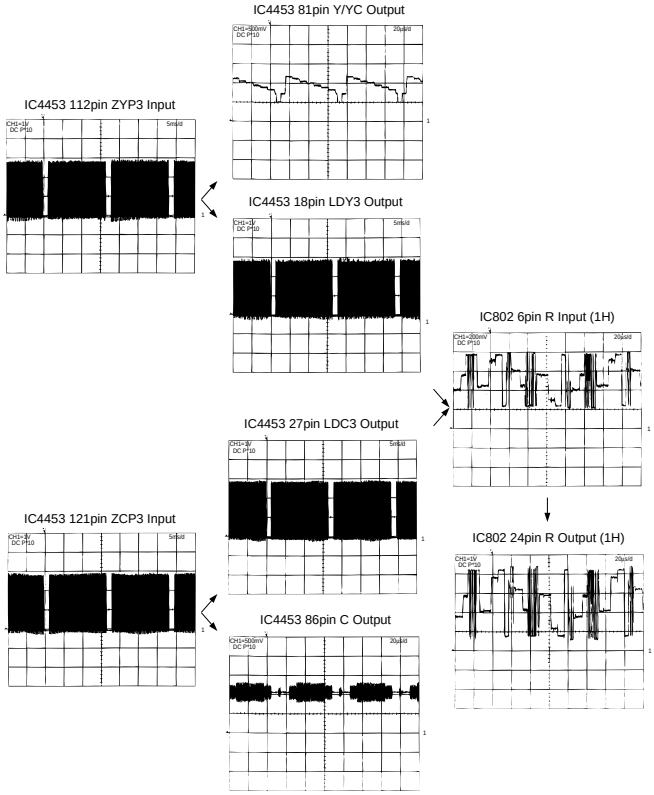
Major circuits to be checked
- Y data between camera DSP (IC201) and LCD_DECODER (IC802) is missing.

11. SIGNAL FLOW DIAGRAMS

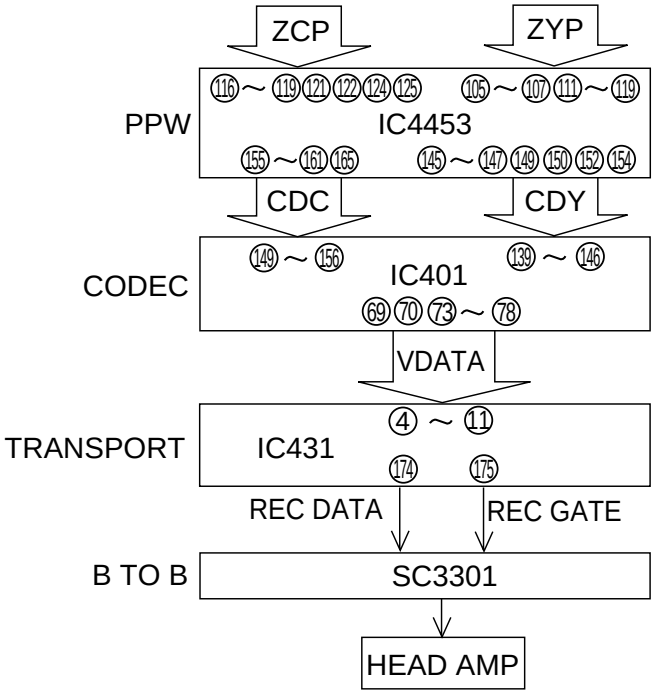
11-1. EE MODE FLOW (VIDEO)



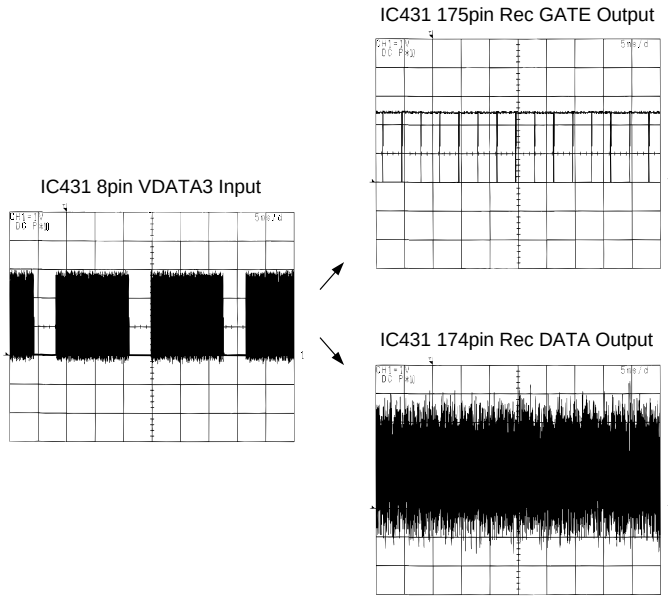
WAVEFORM DIAGRAM (DURING COLOUR BAR RECORDING)


IC4453 81pin Y/YC Output
IC4453 112pin ZYP3 Input
IC4453 18pin LDY3 Output
IC802 6pin R Input (1H)
IC4453 27pin LDC3 Output
IC4453 121pin ZCP3 Input
IC802 24pin R Output (1H)
IC4453 86pin C Output

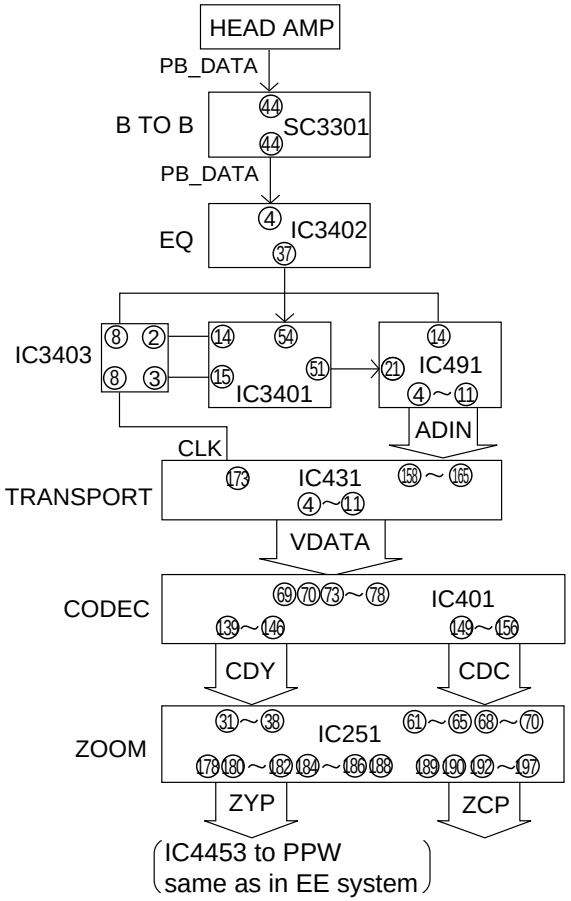
11-2. FLOW IN REC MODE (VIDEO)



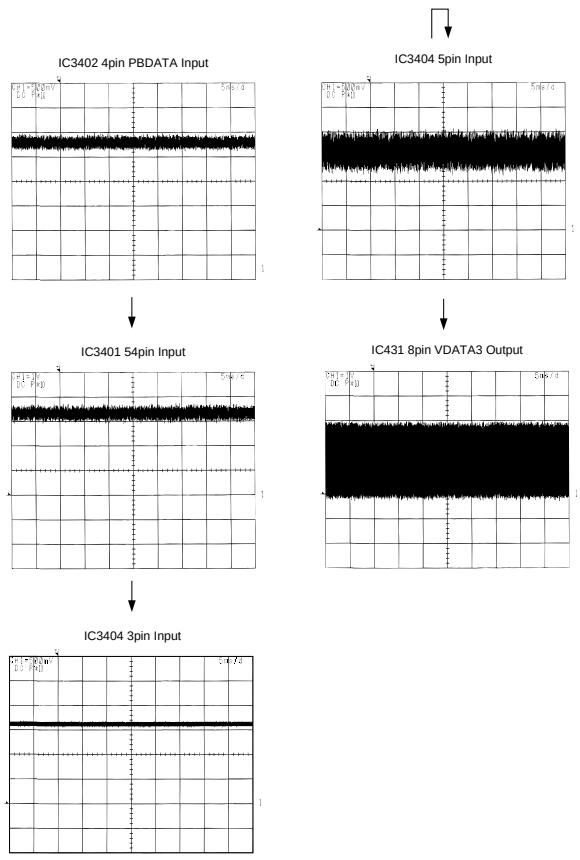
WAVEFORM DIAGRAM (DURING COLOUR BAR RECORDING)



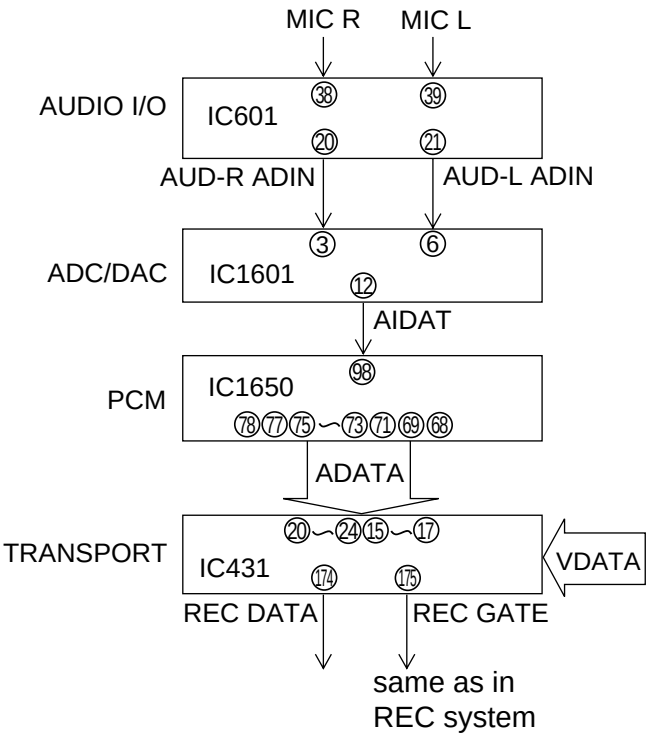
11-3. FLOW IN PB MODE (VIDEO)



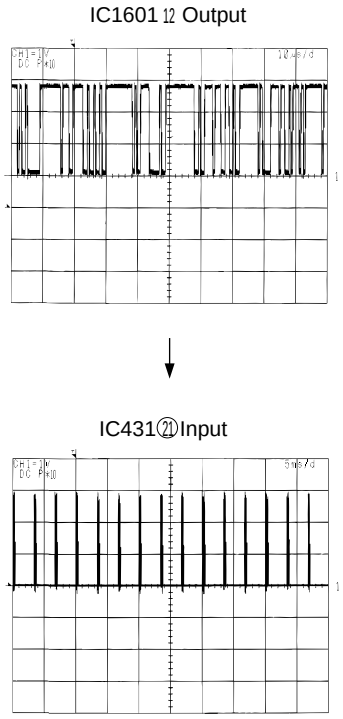
WAVEFORM DIAGRAM (DURING COLOUR BAR PLAYBACK)



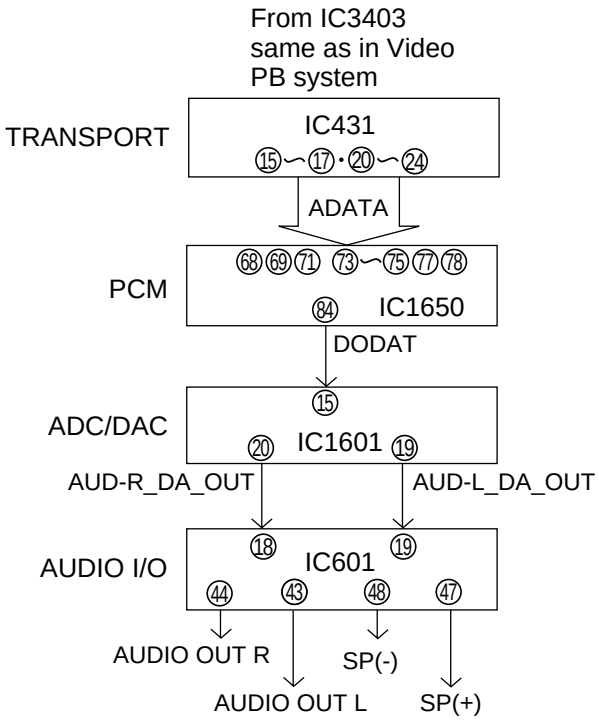
11-4. FLOW IN REC MODE (AUDIO)



WAVEFORM DIAGRAM (1.6 kHz SINE WAVE)

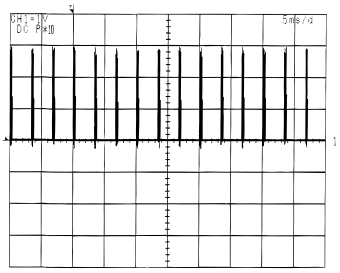


11-5. FLOW IN PB MODE (AUDIO)

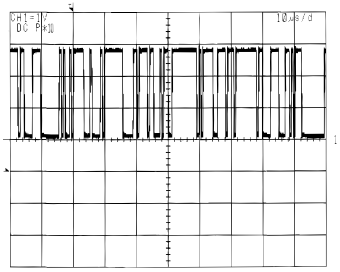


WAVEFORM DIAGRAM (1.6 kHz SINE WAVE)

IC431 ㉑ ADATA3 Output

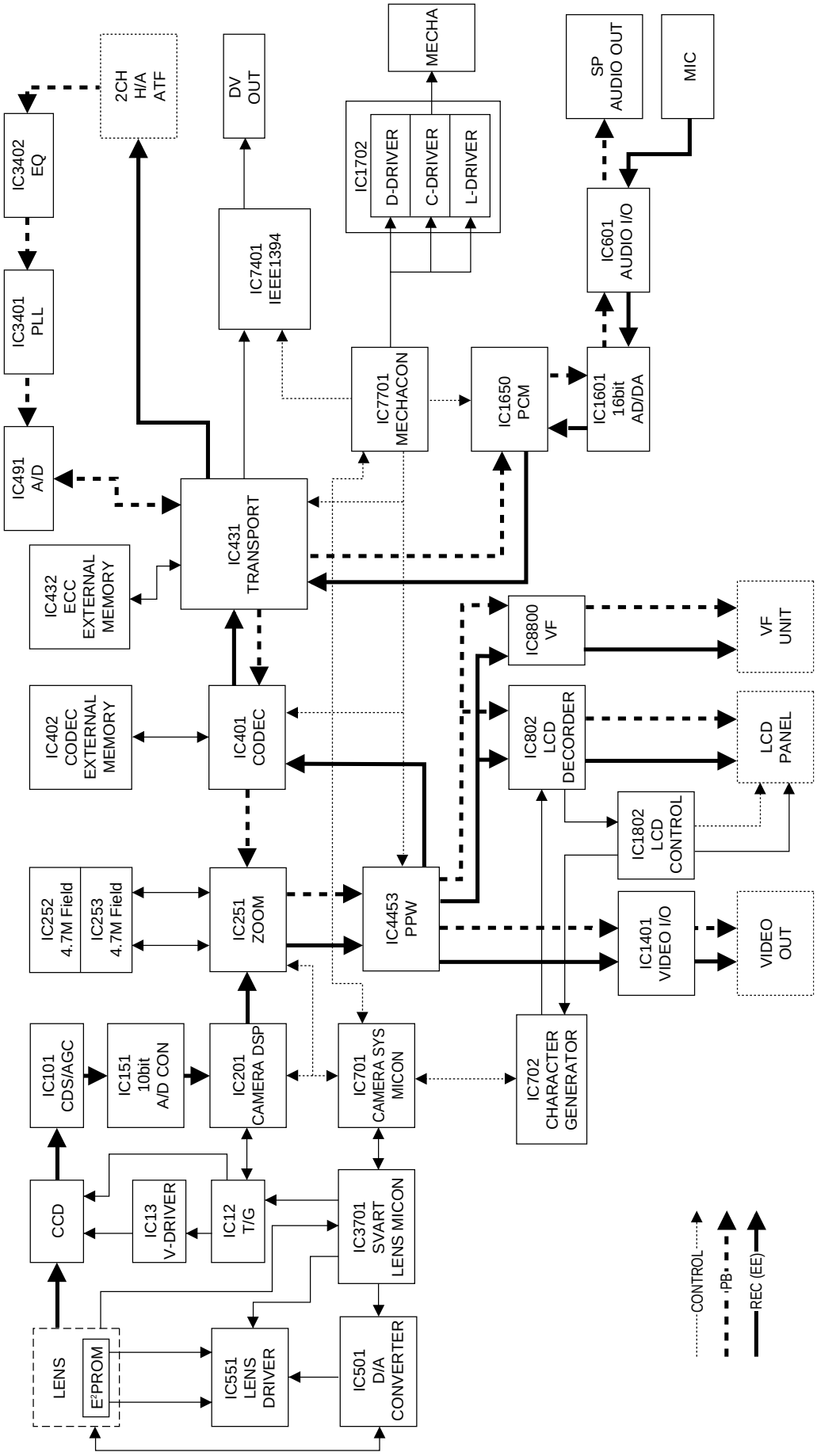


IC1601 ⑮ DODAT Input

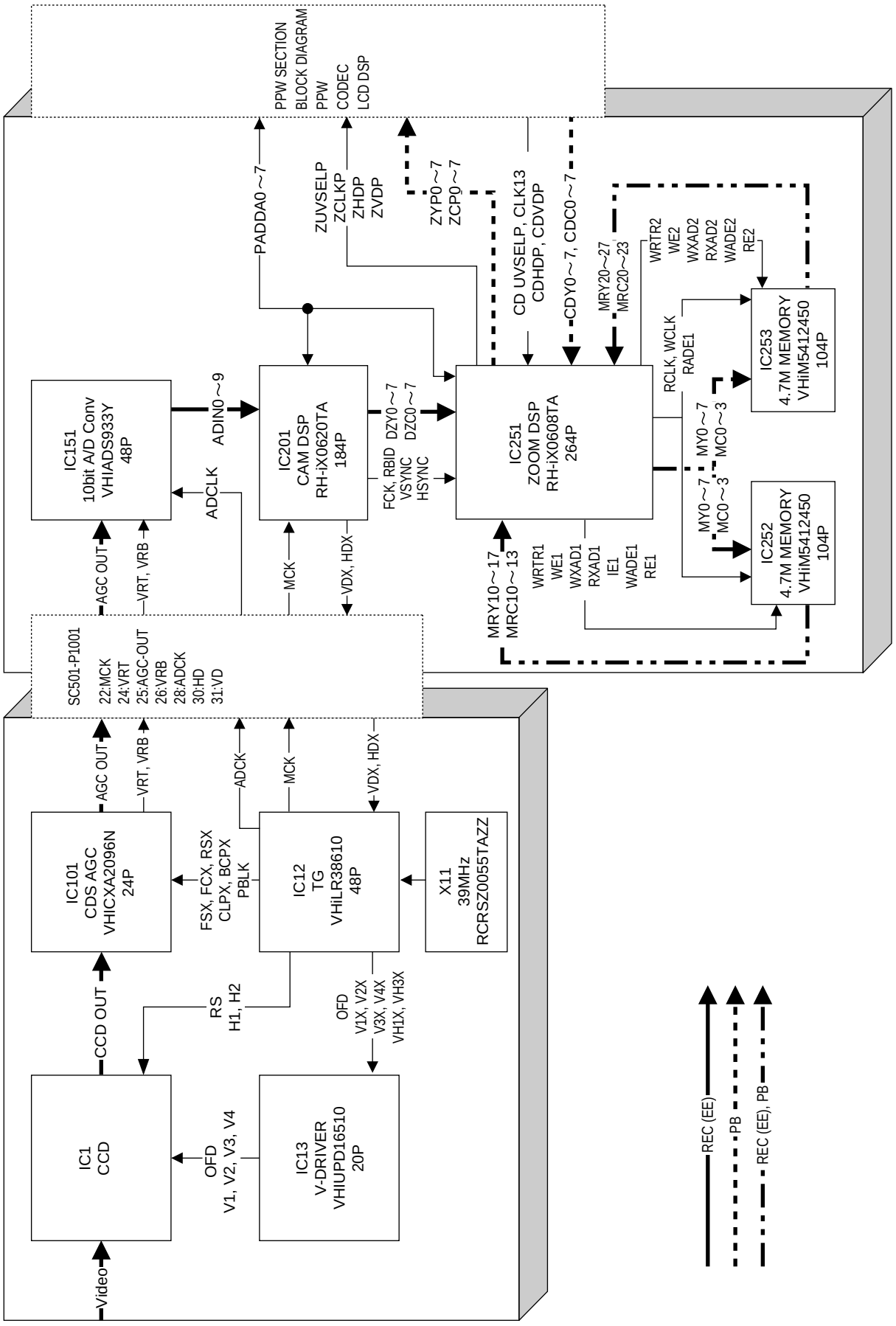


12. BLOCK DIAGRAMS

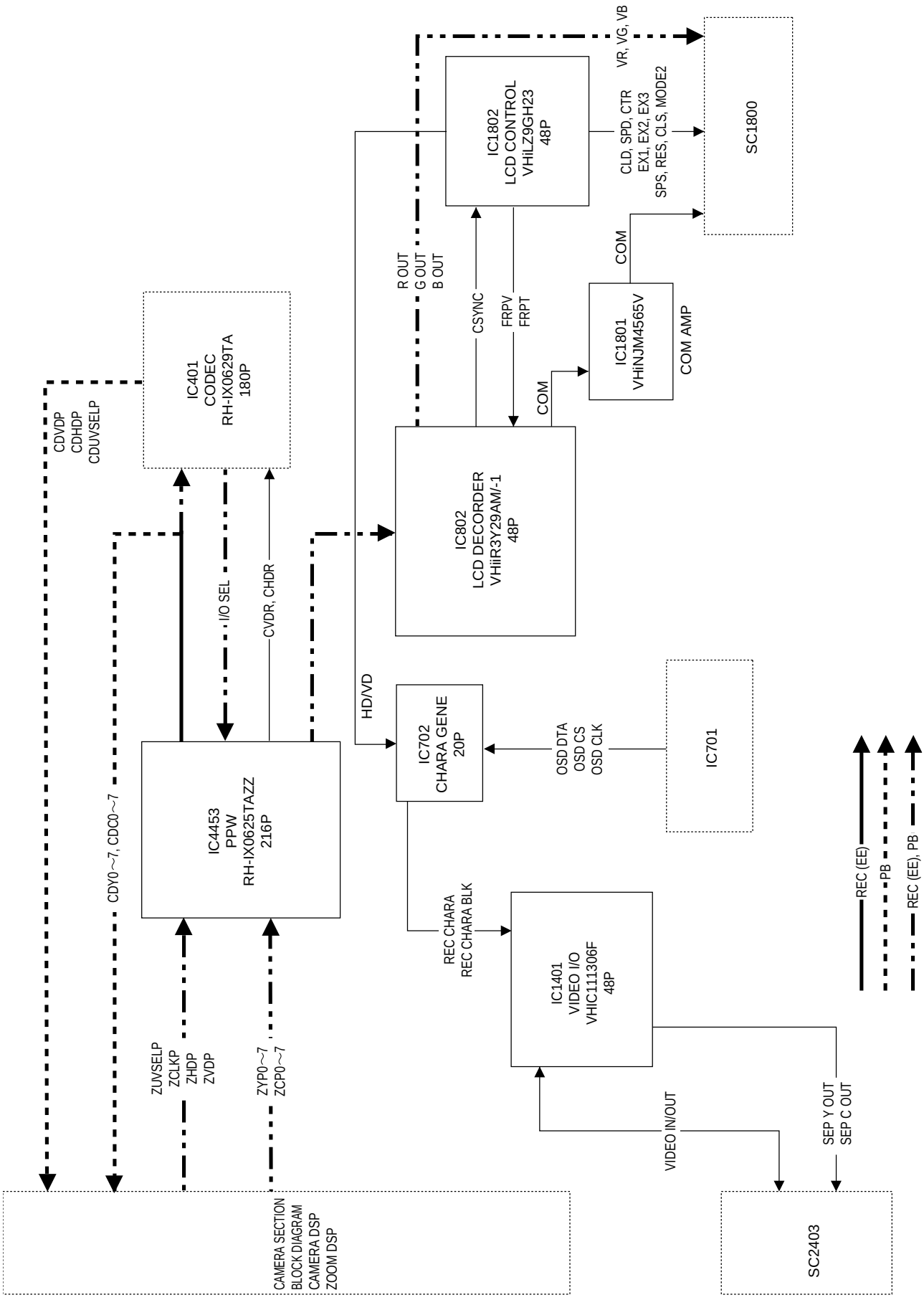
12-1. SYSTEM BLOCK DIAGRAM



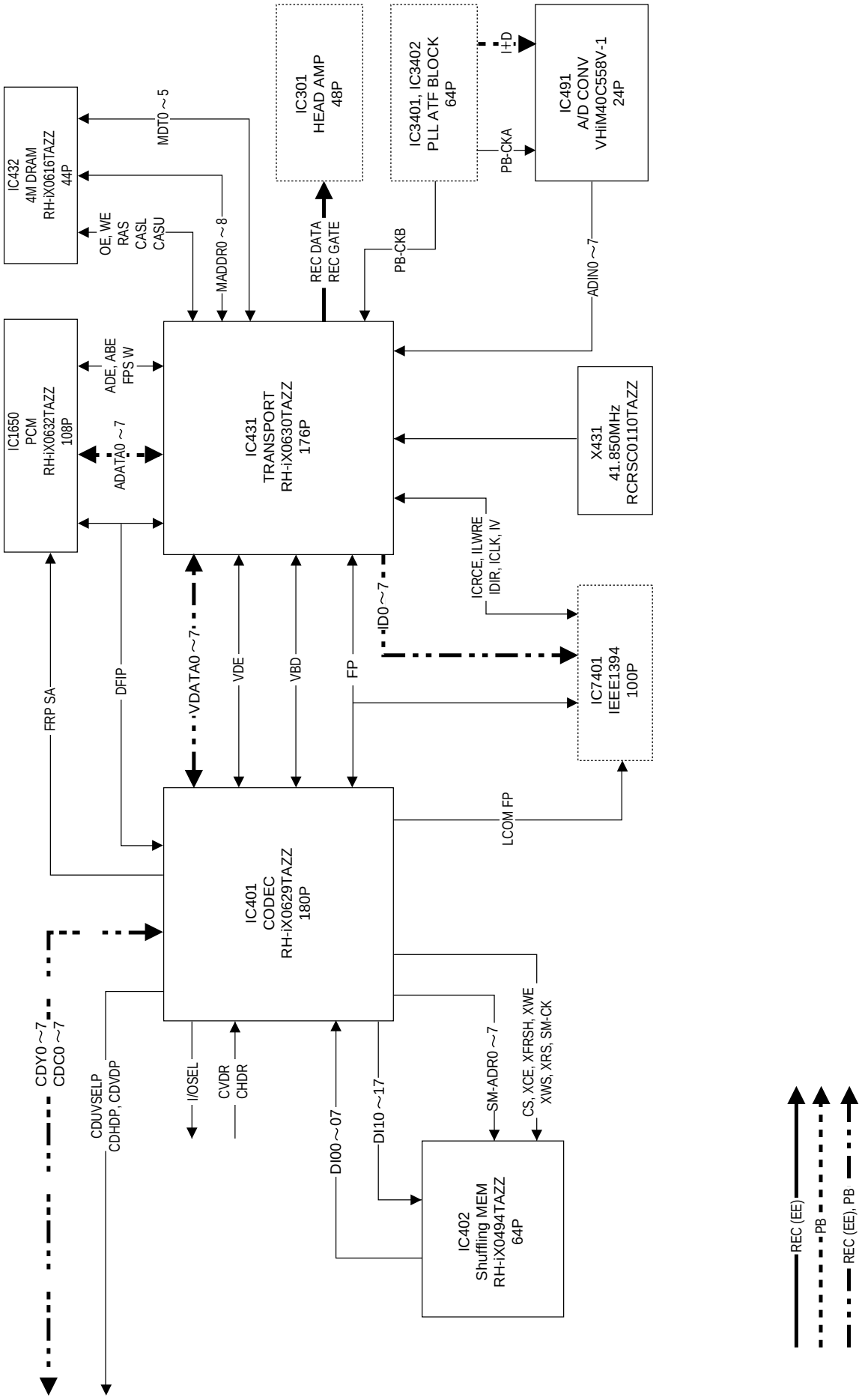
12-2. CAMERA SECTION BLOCK DIAGRAM



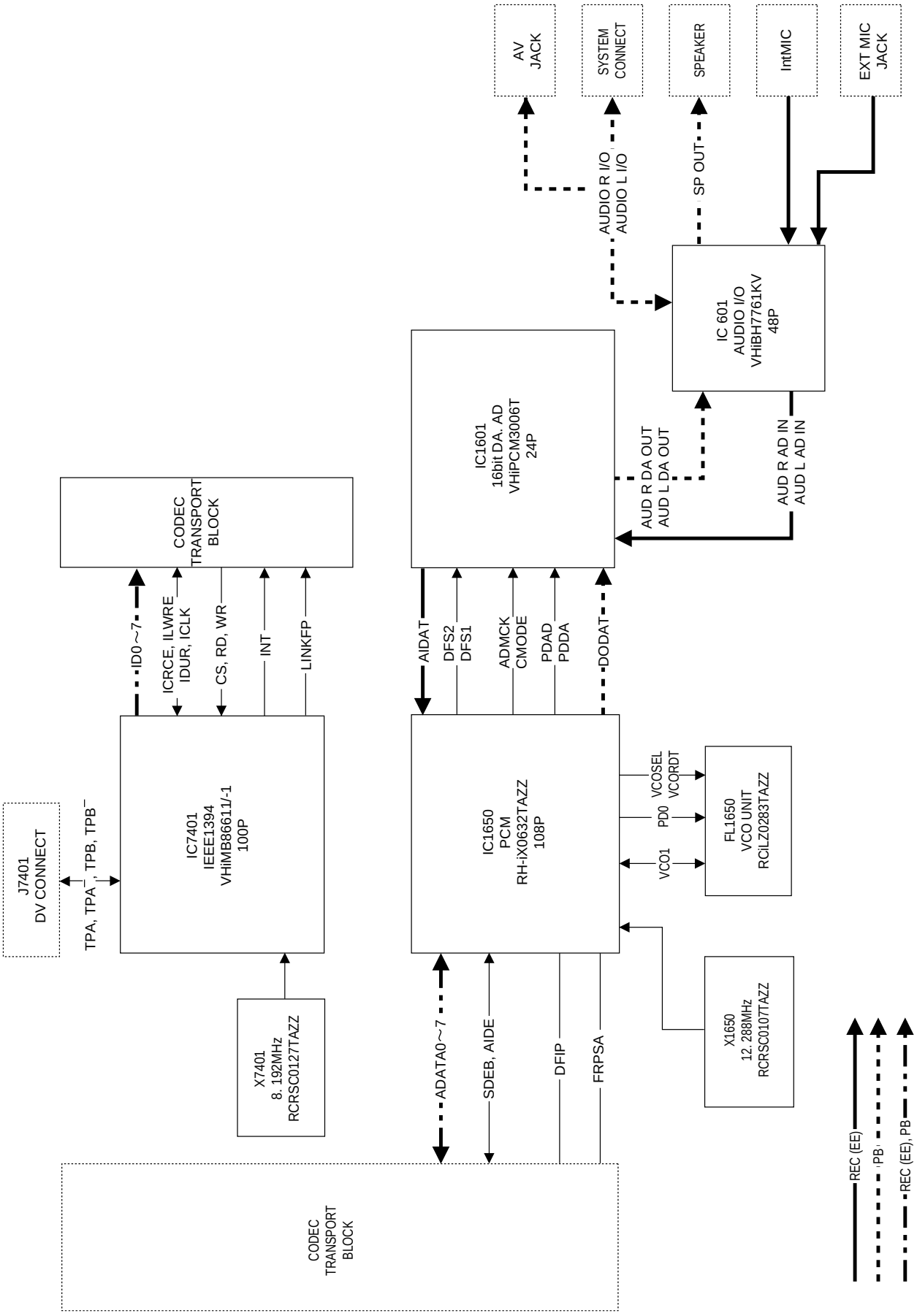
12-3. PPW SECTION BLOCK DIAGRAM



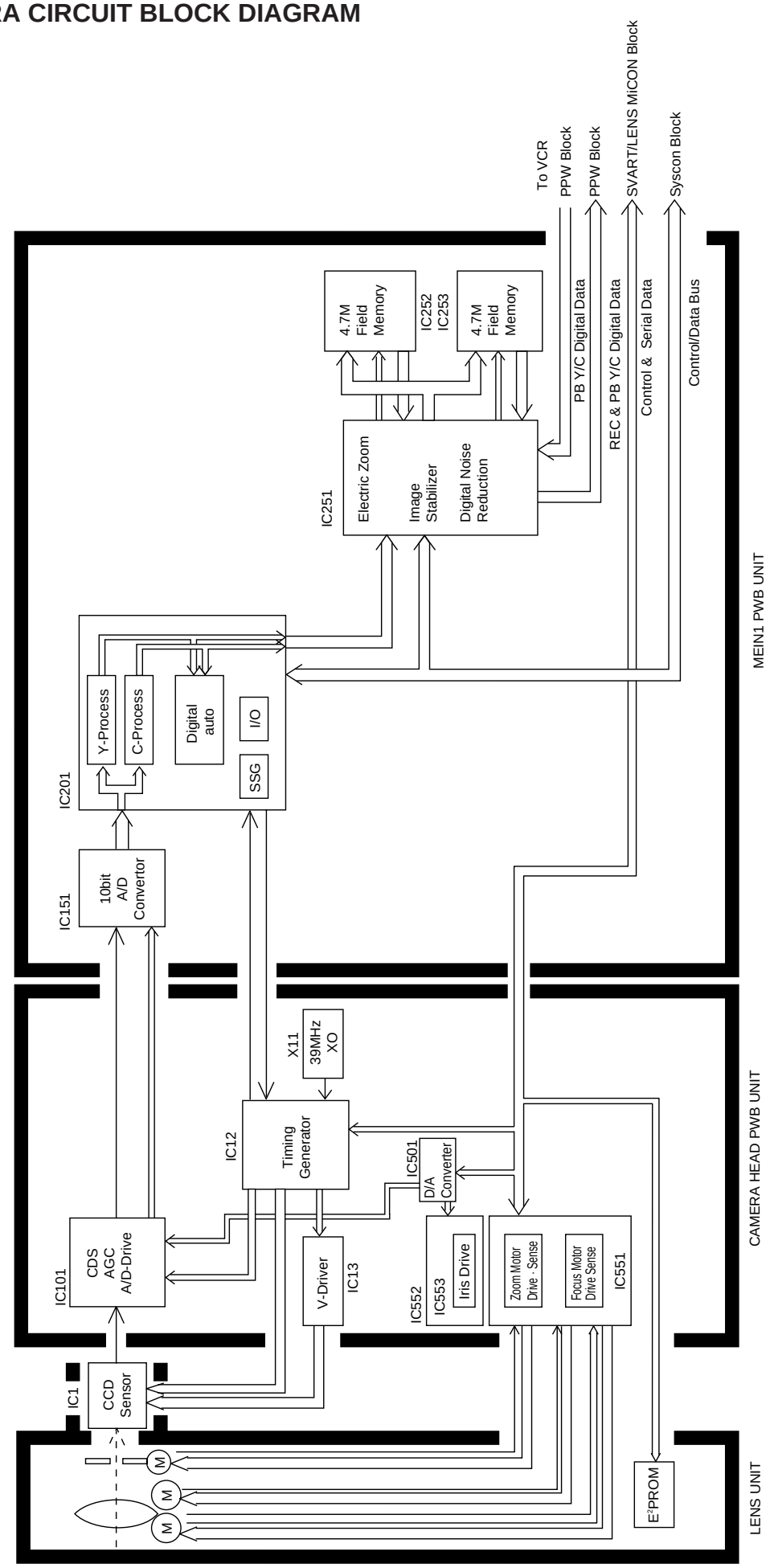
12-4. CODEC SECTION BLOCK DIAGRAM



12-5. AUDIO/DIGITAL OUTPUT SECTION BLOCK DIAGRAM



12-6. CAMERA CIRCUIT BLOCK DIAGRAM



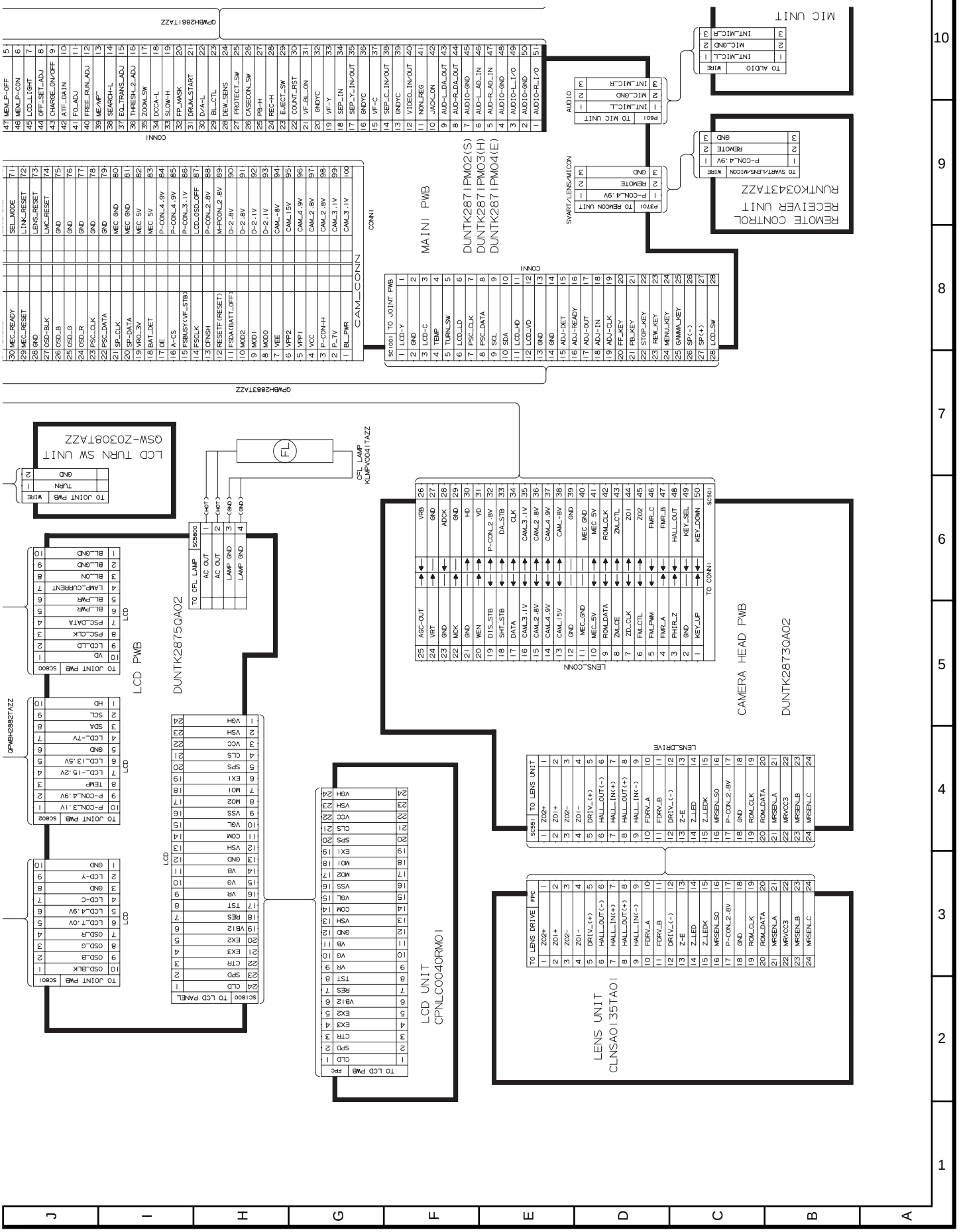
VL-PD3S/H/E

- M E M O -

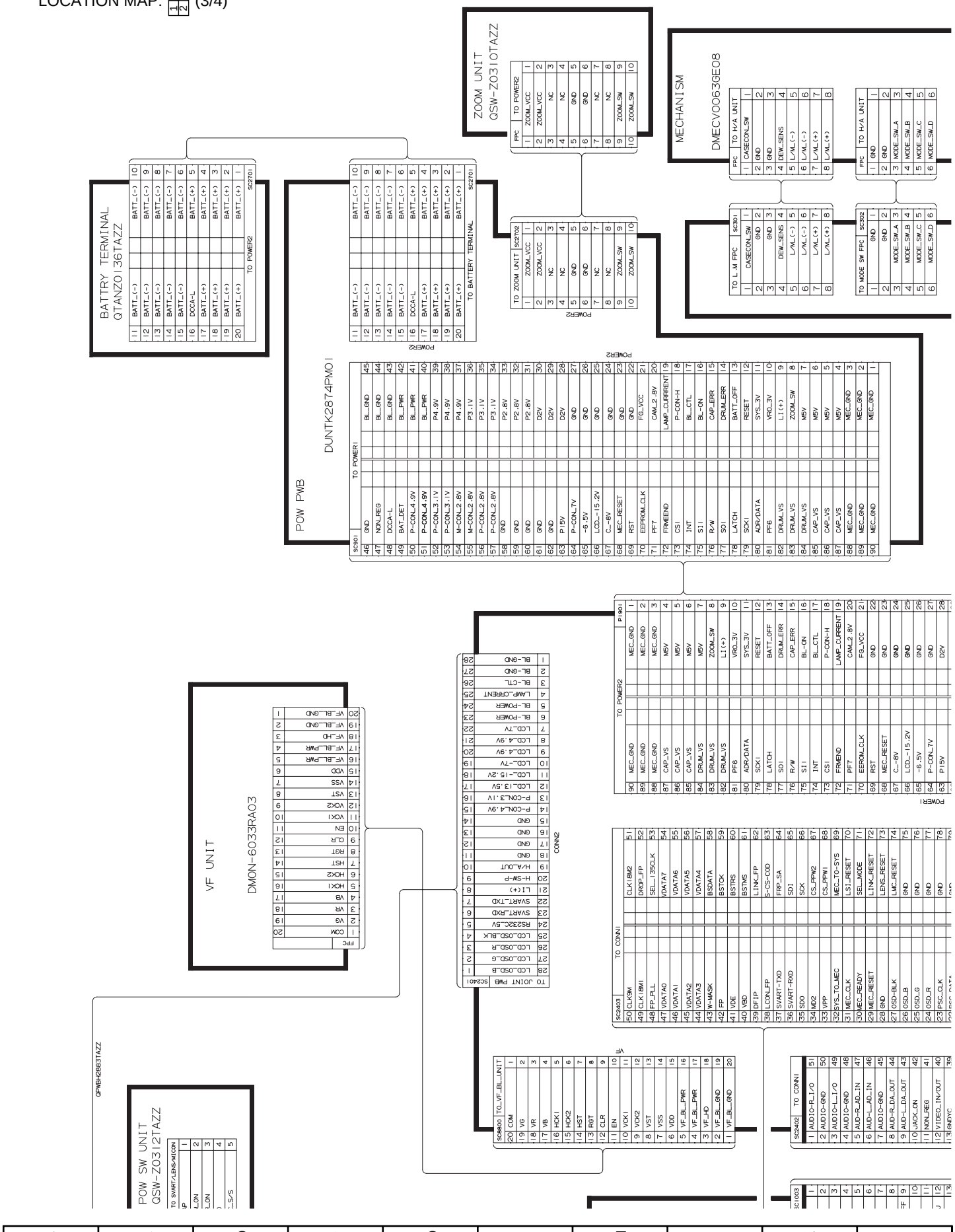
13. SCHEMATIC DIAGRAMS 13-1. OVERALL SCHEMATIC DIAGRAM

LOCATION MAP: 3 / 2 4 (1/4)

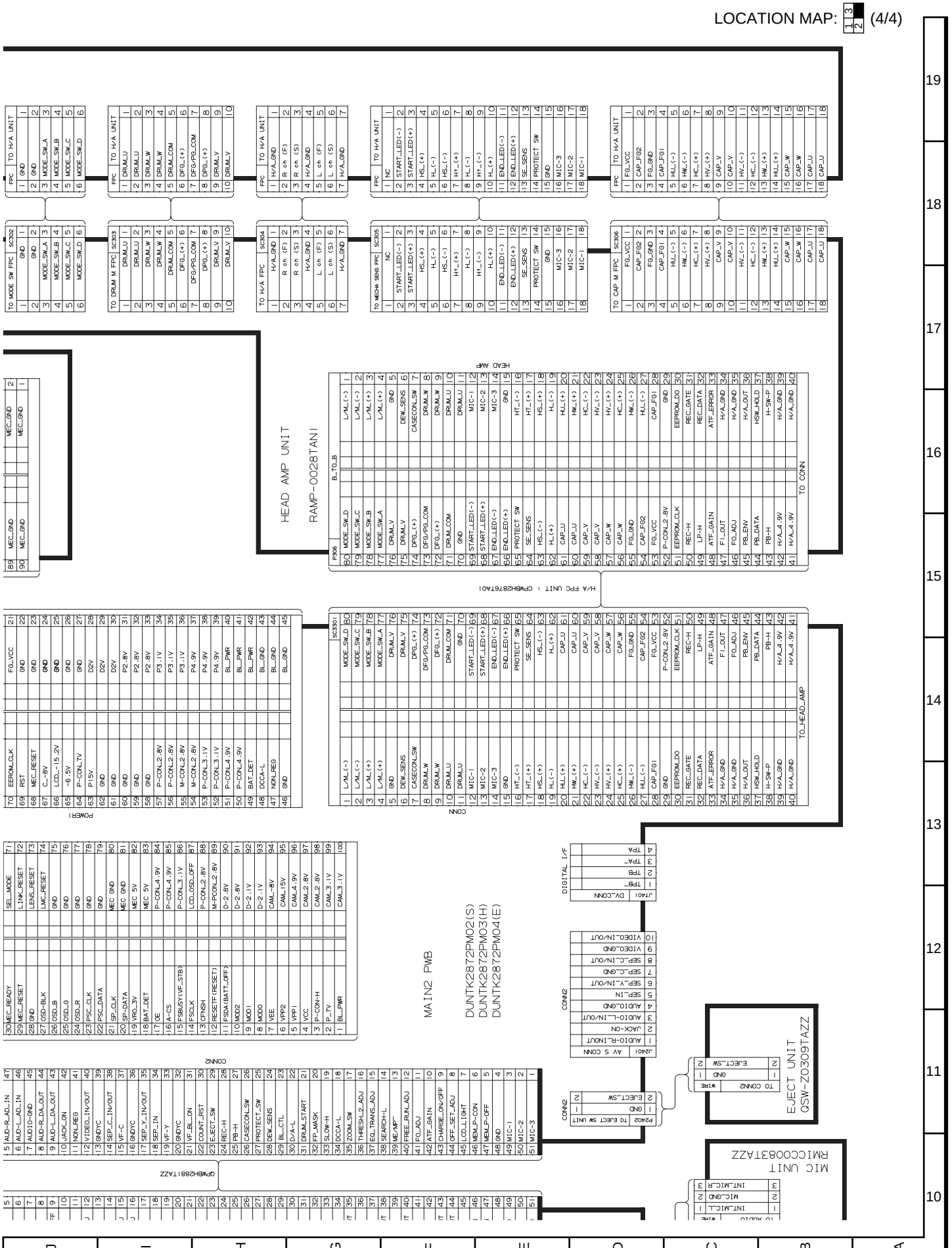
LOCATION MAP: 1 3 4 (2/4)



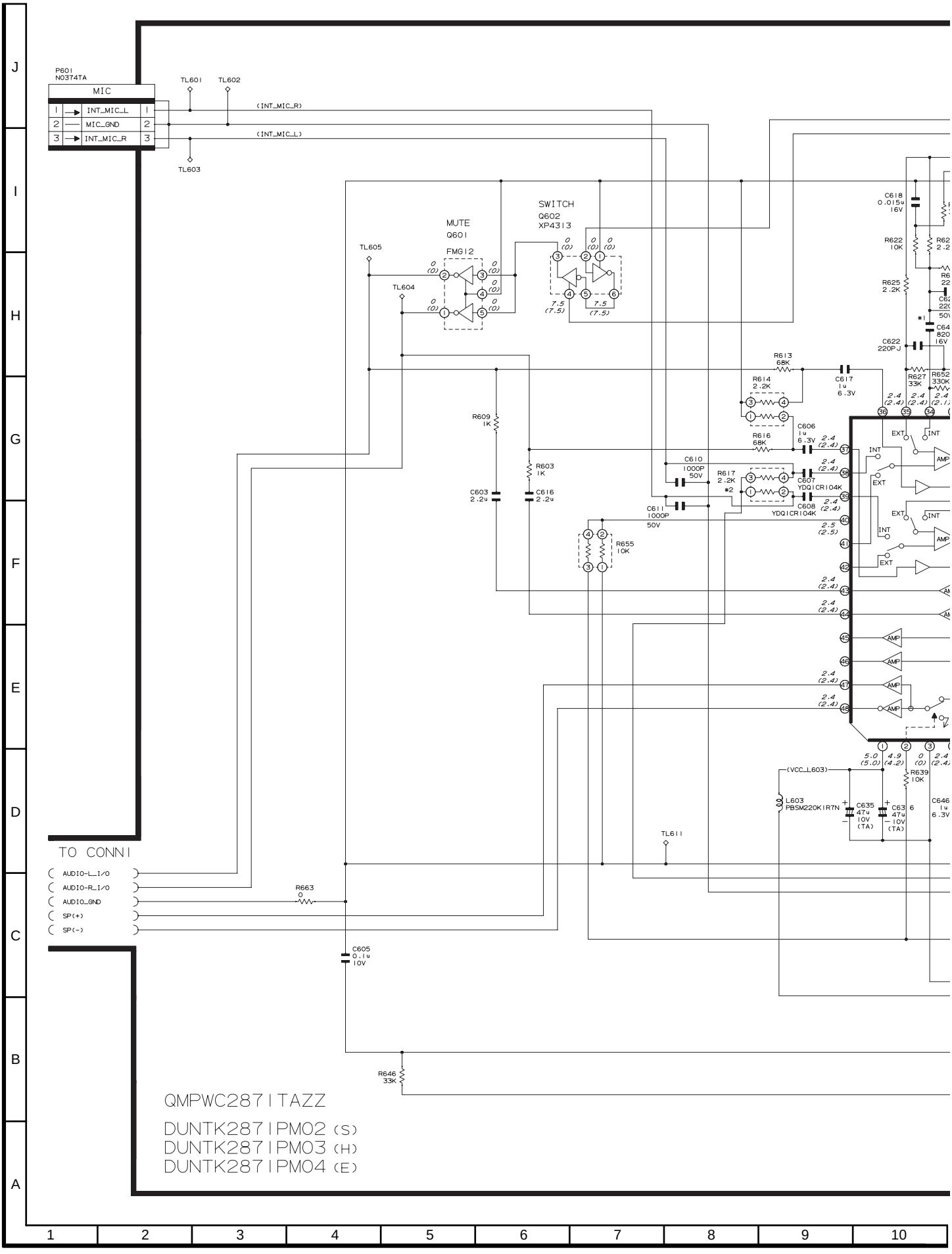
LOCATION MAP: 1 3 2 4 (3/4)

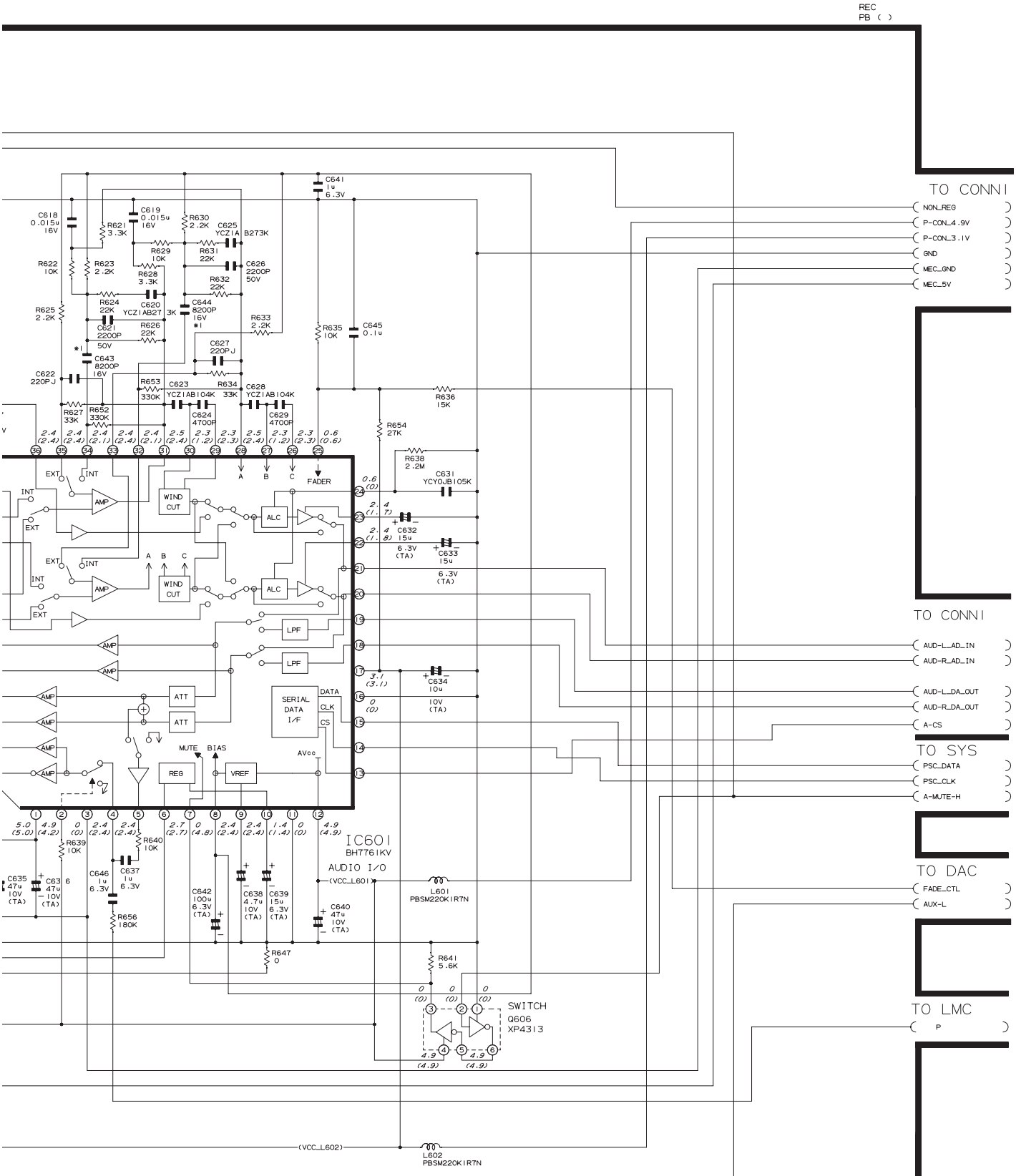


LOCATION MAP: 1 3 / 2 (4/4)



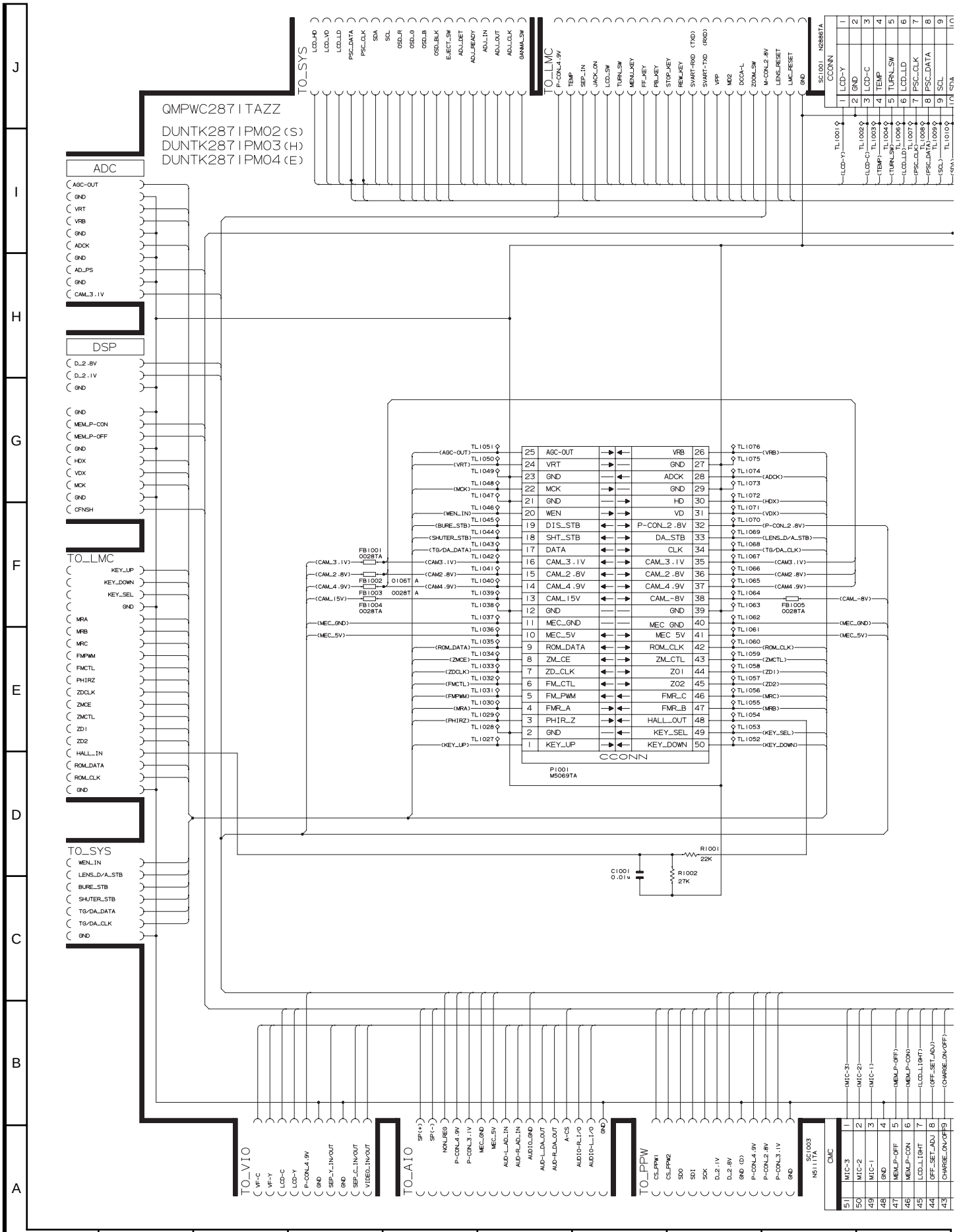
13-2. AUDIO I/O CIRCUIT SCHEMATIC DIAGRAM

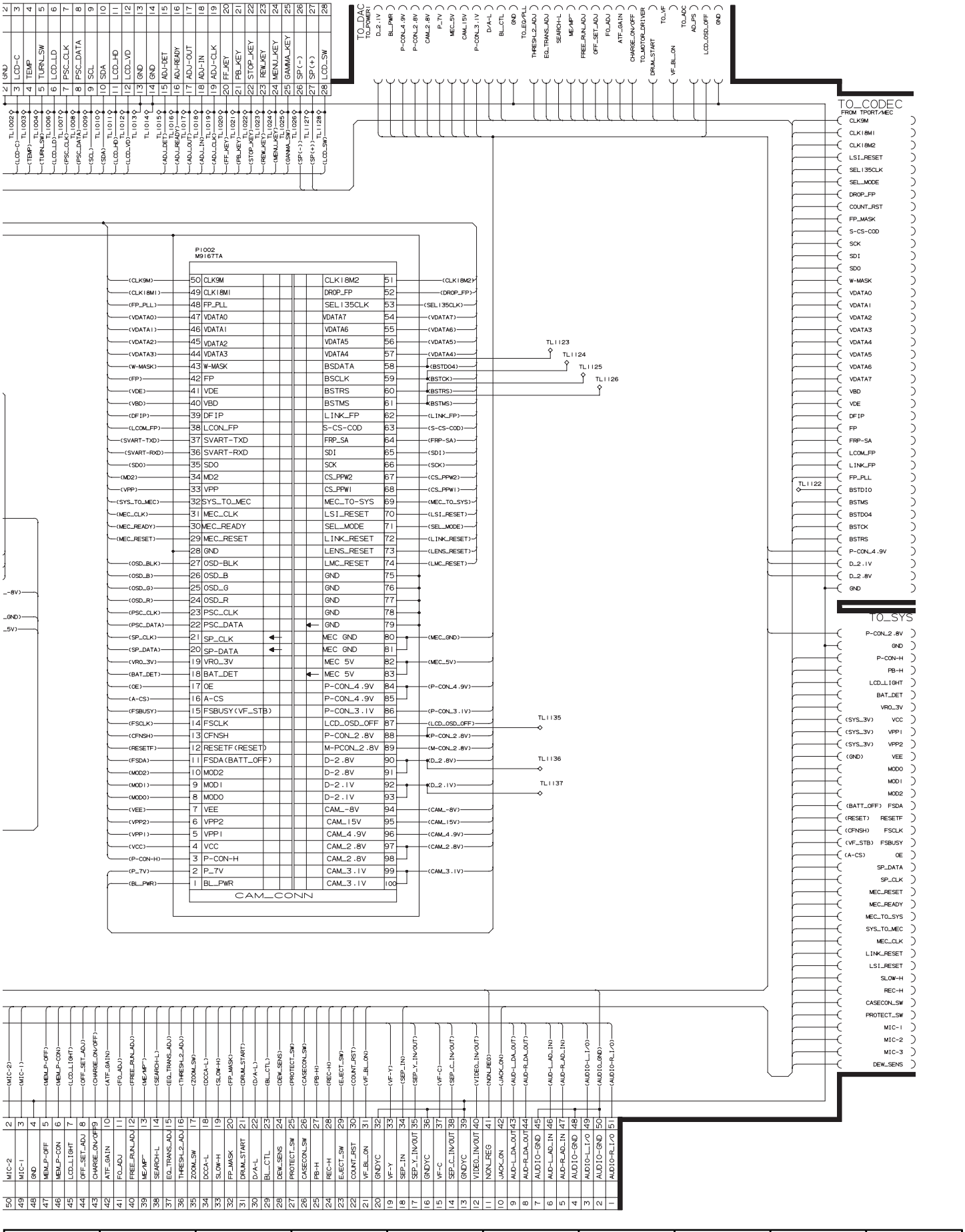




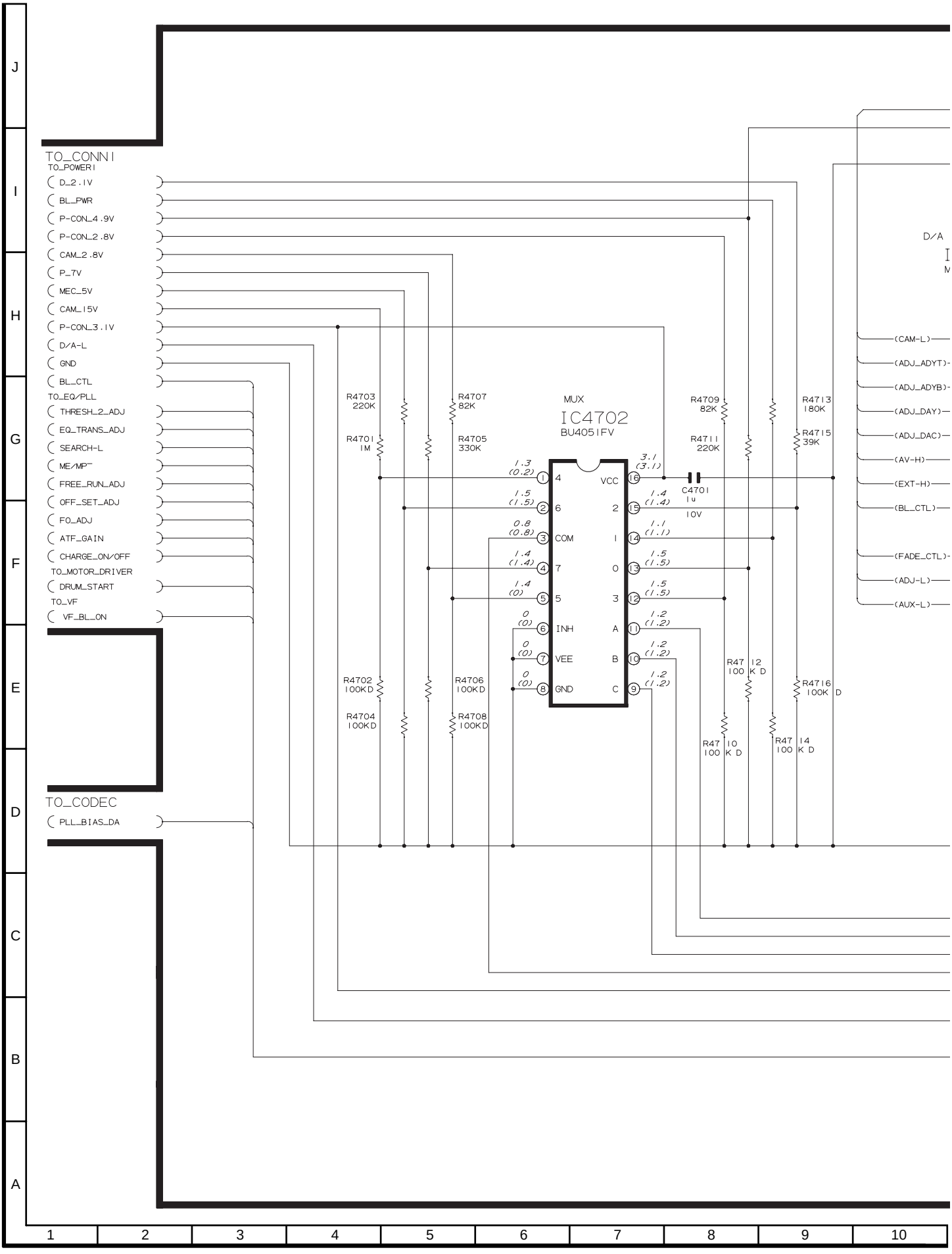
10	11	12	13	14	15	16	17	18	19

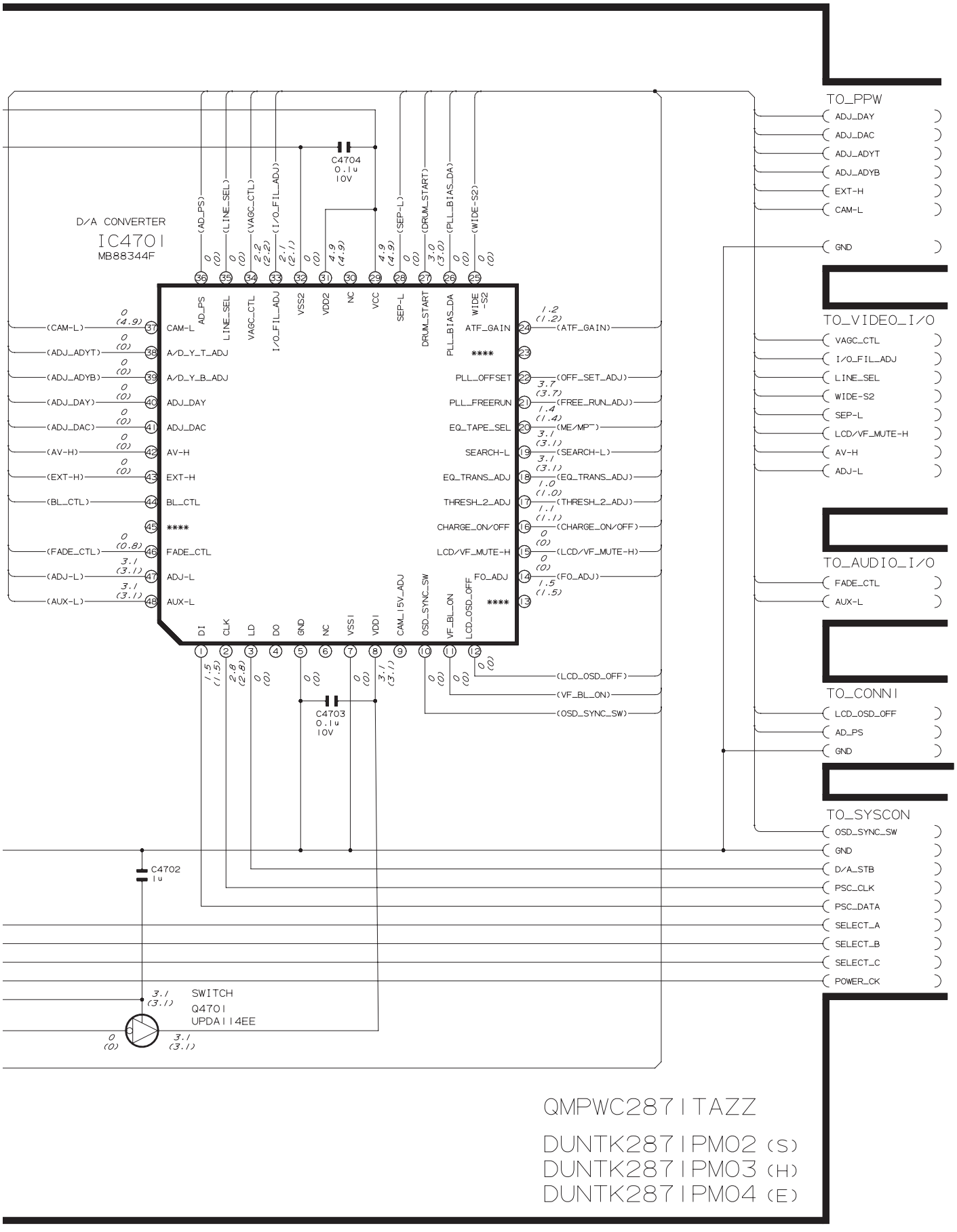
13-3. CONN1 CIRCUIT SCHEMATIC DIAGRAM




TO_DAC
TO_CODEC
FROM TPORT/MEC
TO_SYS
P1002
M9167TA
CAM_CONN
TL1123
TL1124
TL1125
TL1126
TL1122
TL1135
TL1136
TL1137

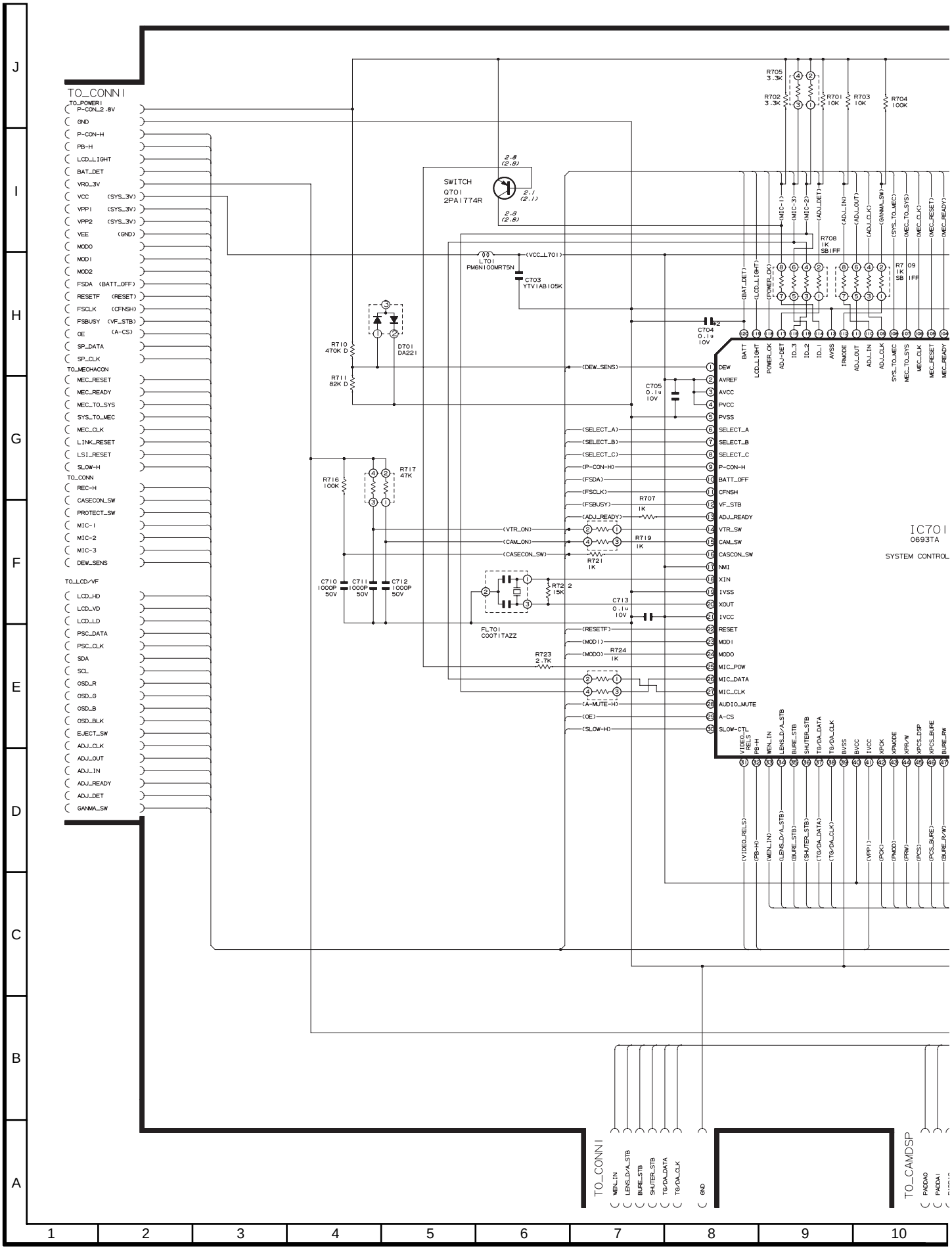
13-4. DAC CIRCUIT SCHEMATIC DIAGRAM

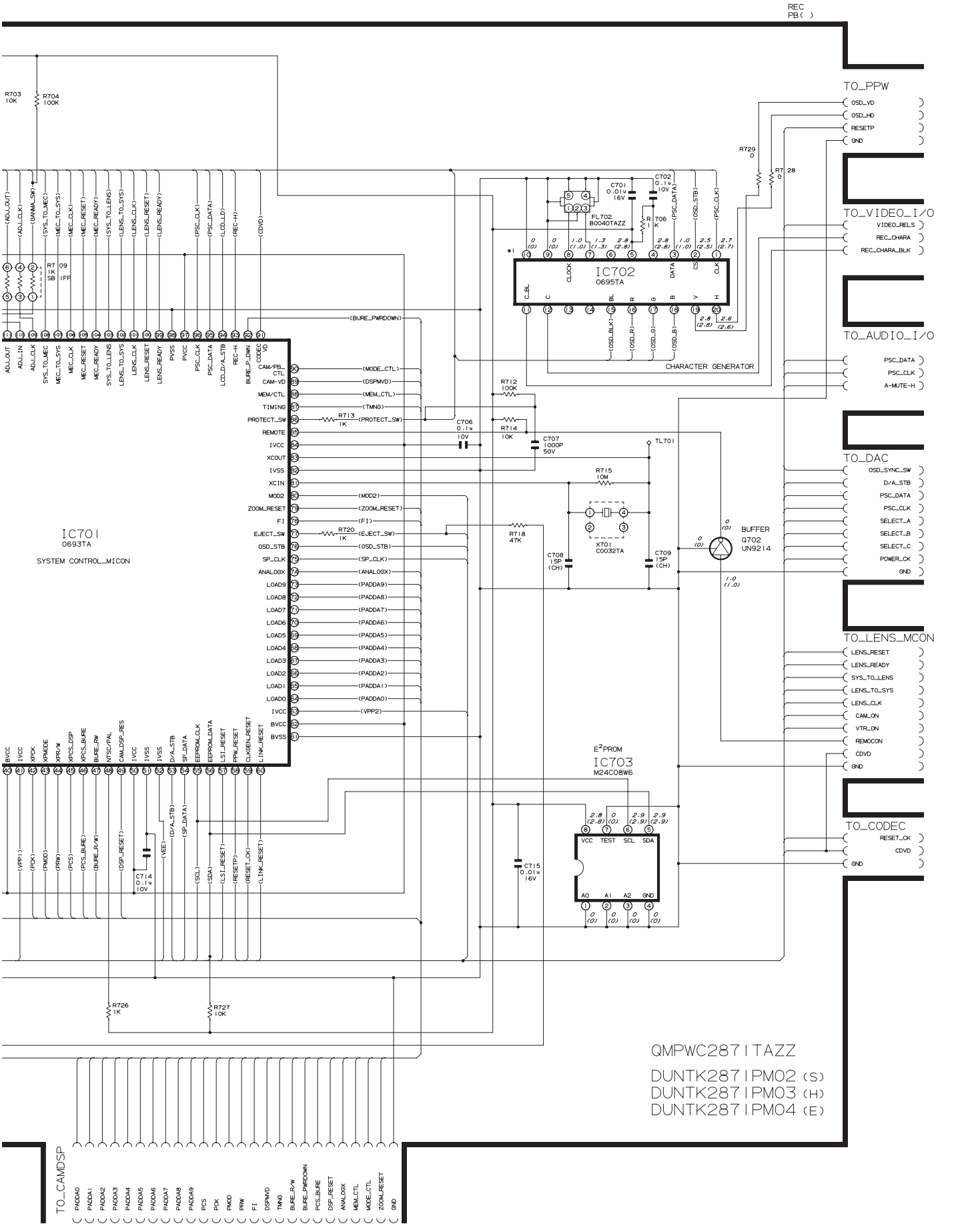




10	11	12	13	14	15	16	17	18	19

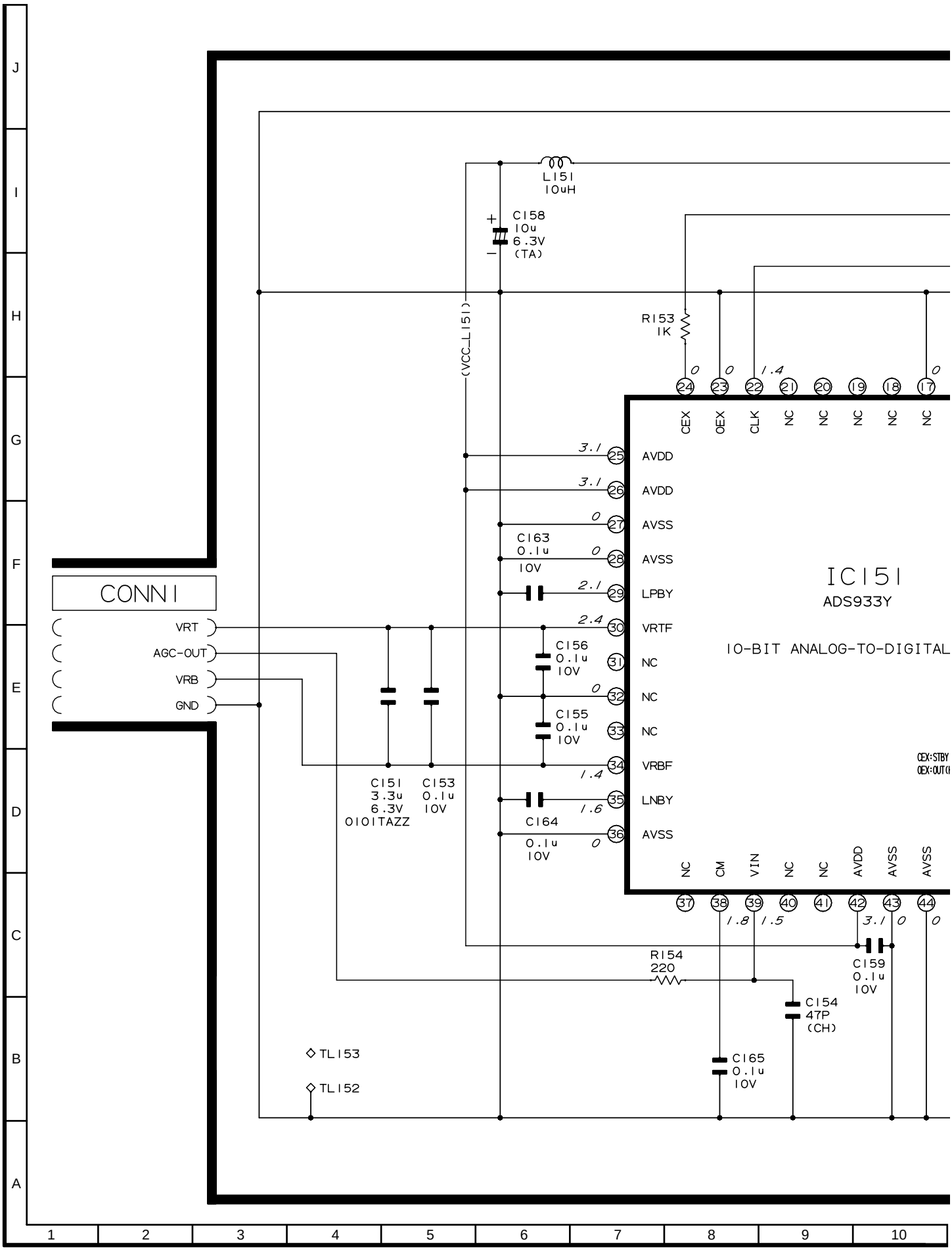
13-5. SYSTEM CONTROL CIRCUIT SCHEMATIC DIAGRAM

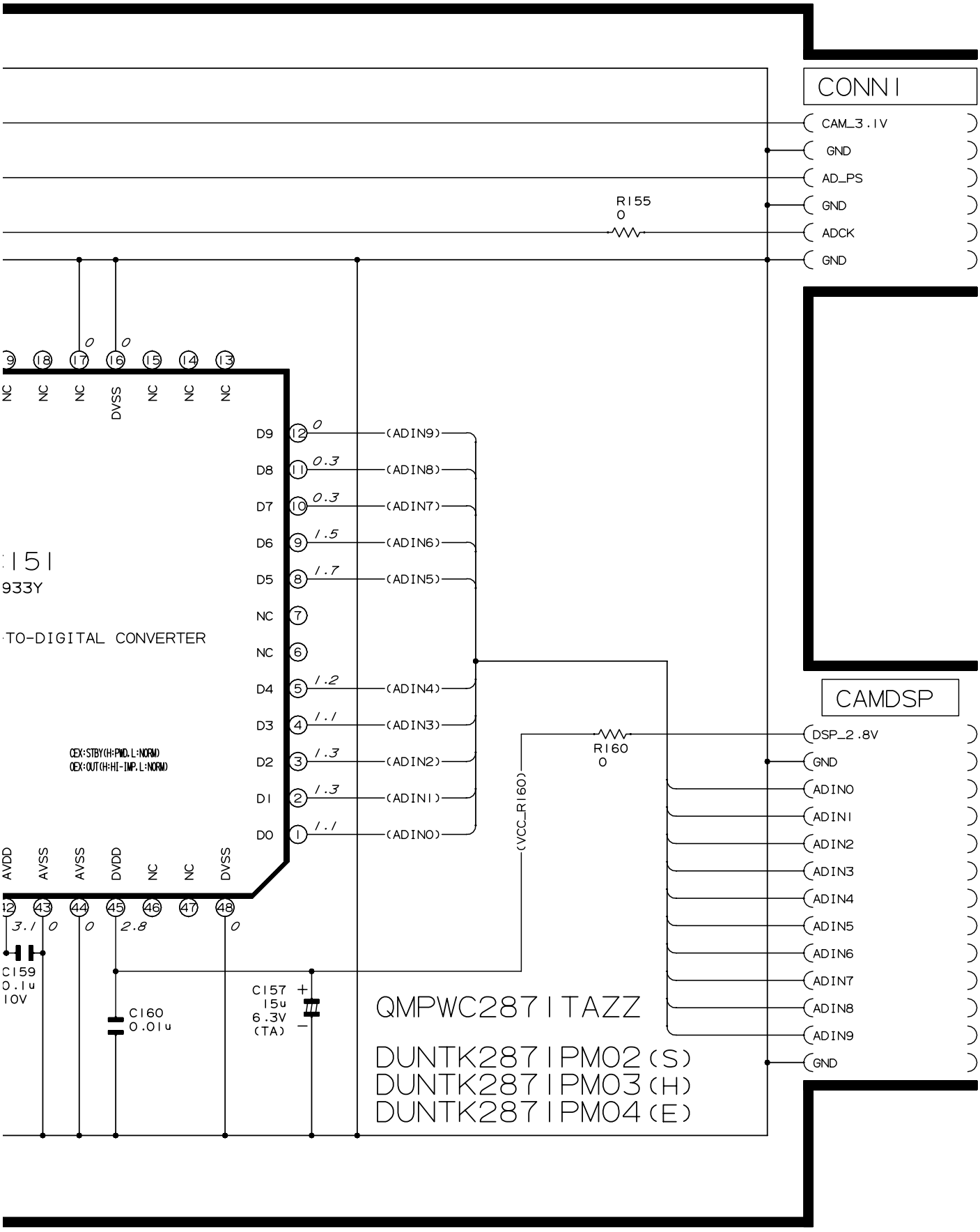




10	11	12	13	14	15	16	17	18	19

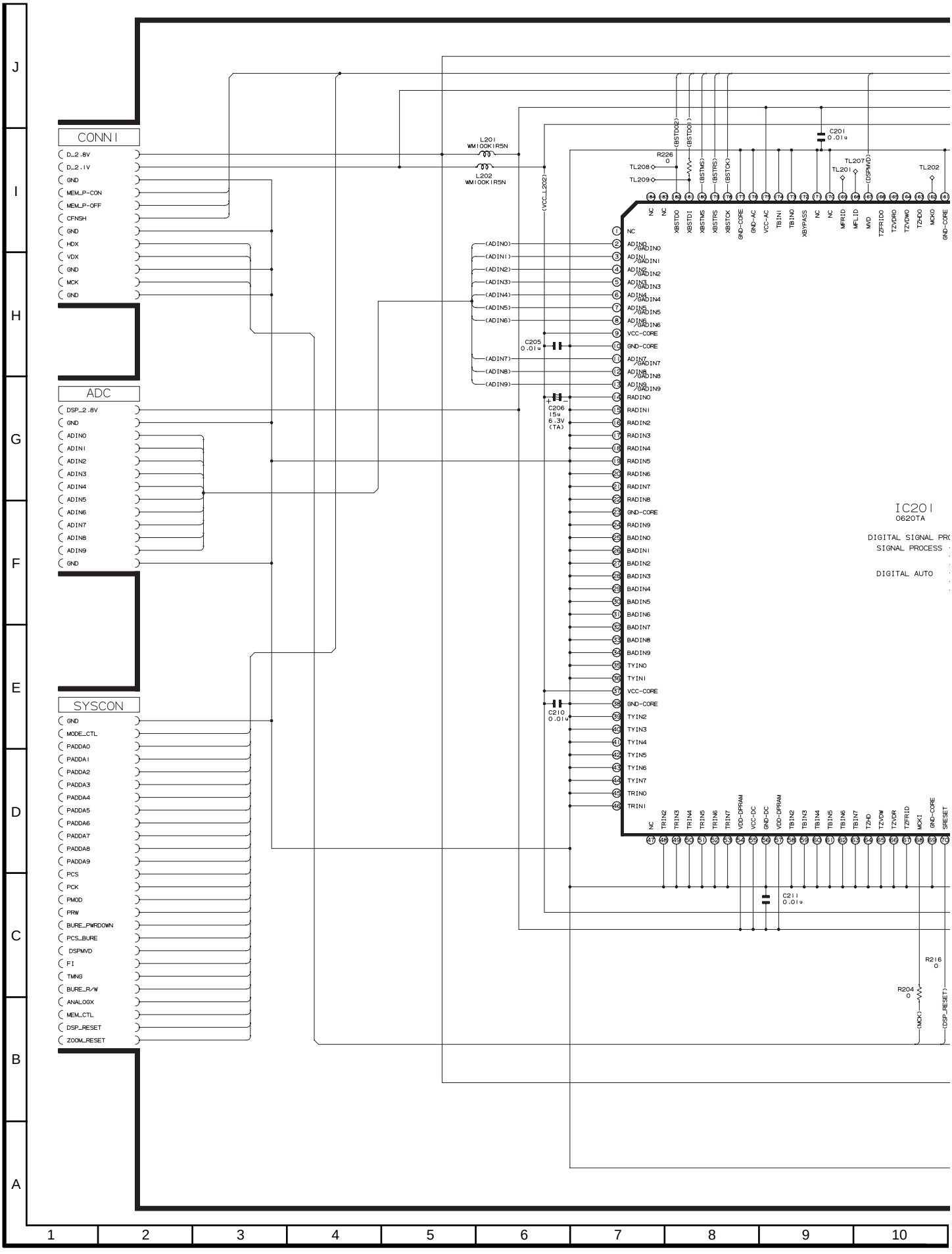
13-6. ADC CIRCUIT SCHEMATIC DIAGRAM

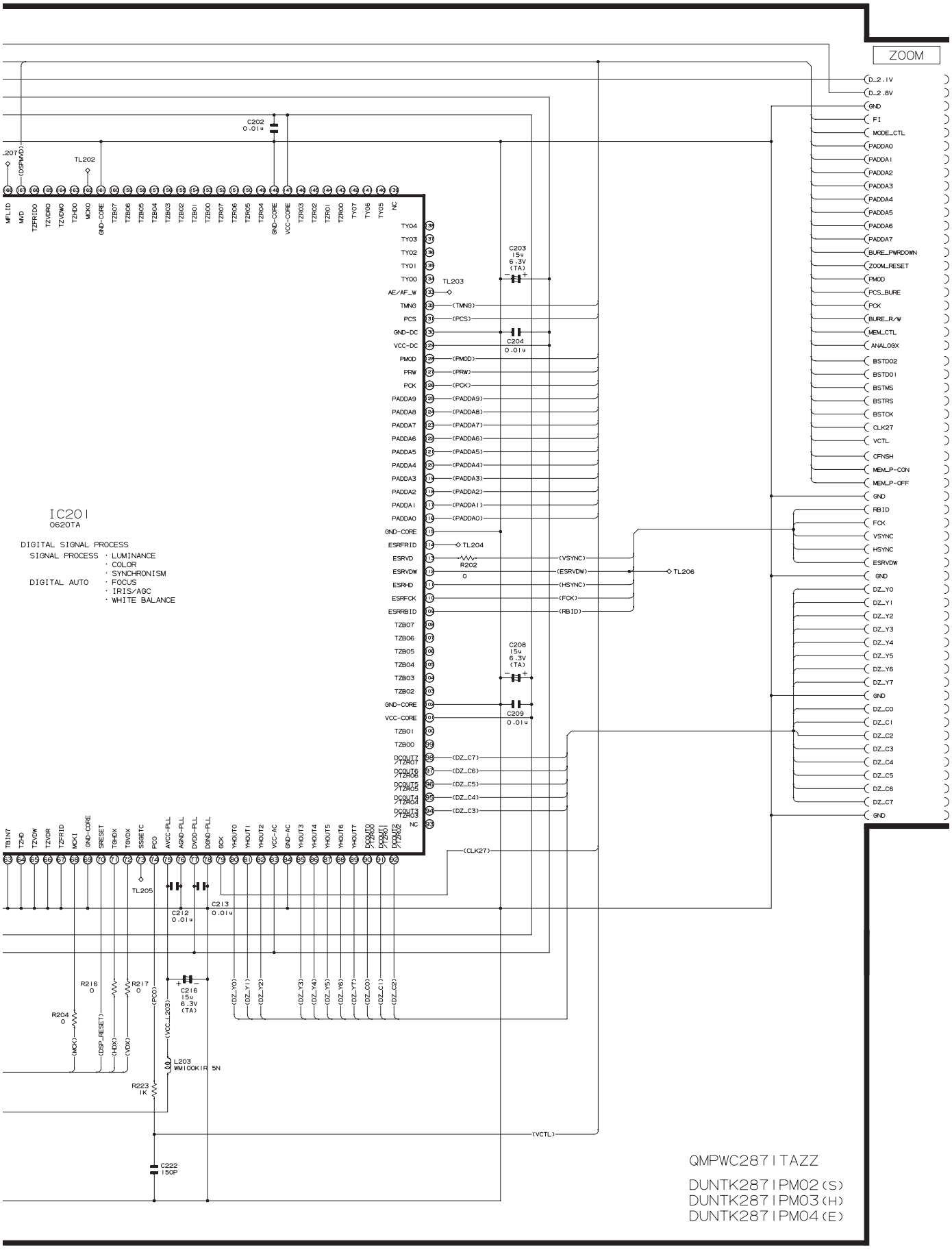




10	11	12	13	14	15	16	17	18	19

13-7. CAM-DSP CIRCUIT SCHEMATIC DIAGRAM

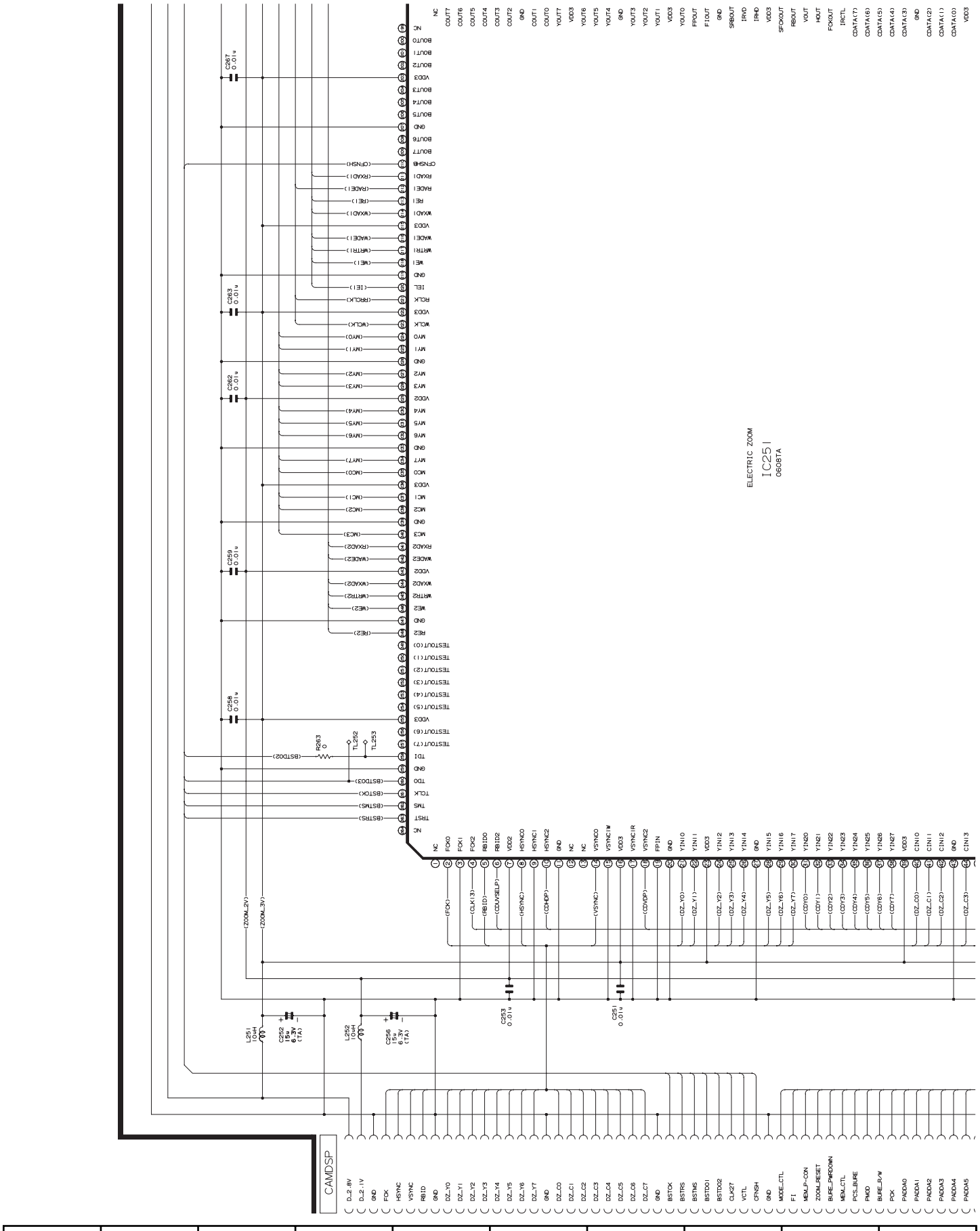




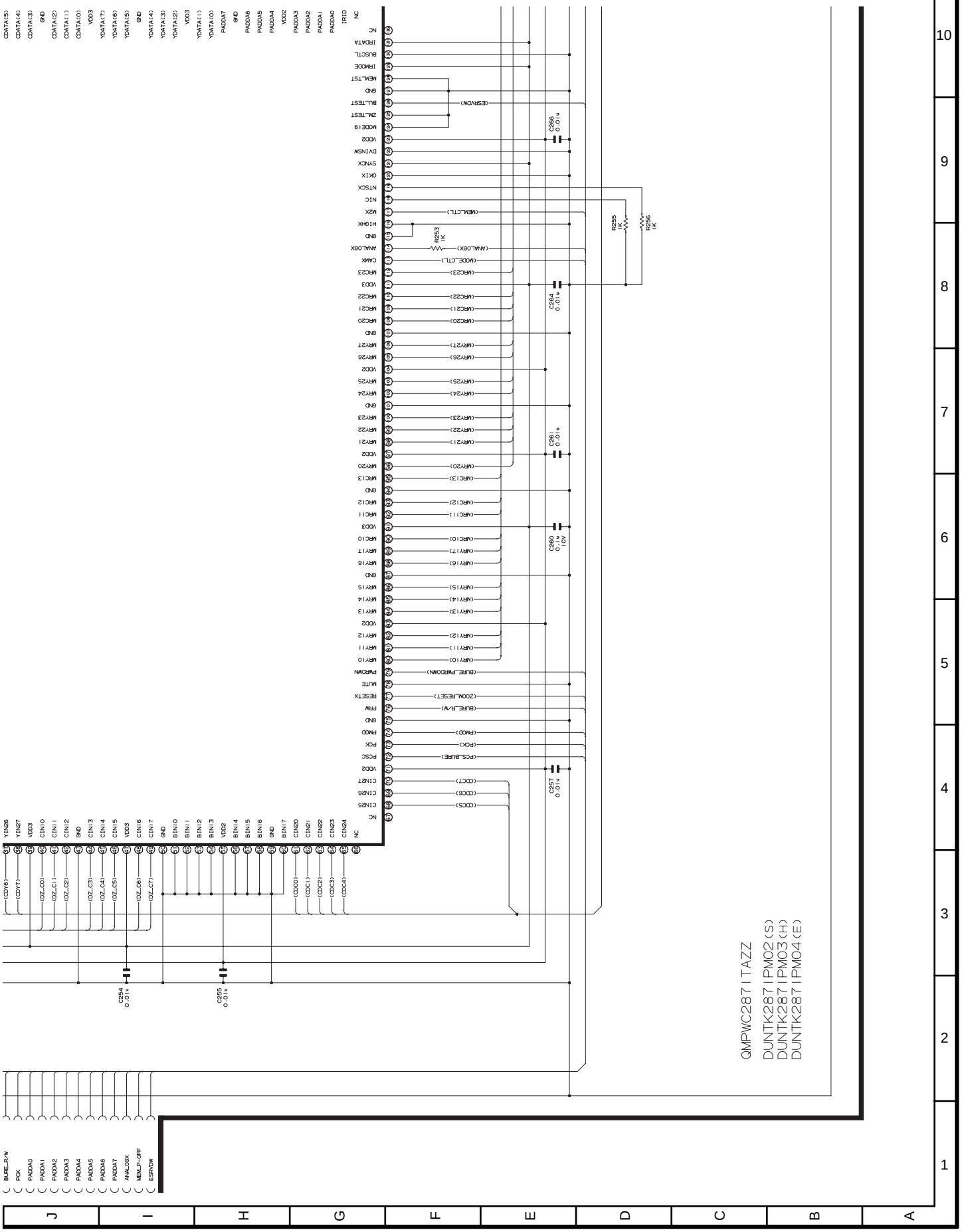
10	11	12	13	14	15	16	17	18	19

13-8. ZOOM CIRCUIT SCHEMATIC DIAGRAM

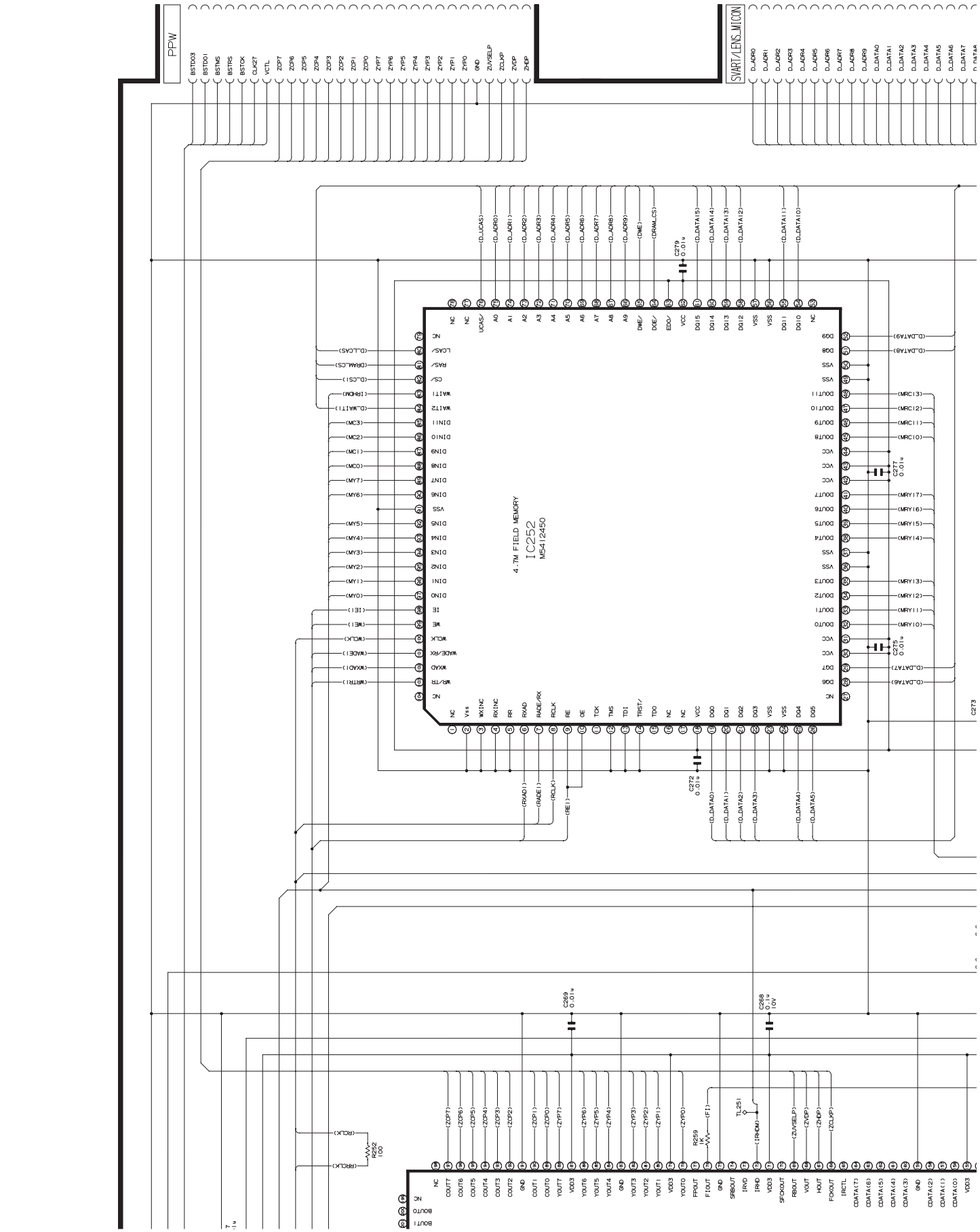
LOCATION MAP: 3 / 2 4 (1/4)



LOCATION MAP: 1 3 4 (2/4)

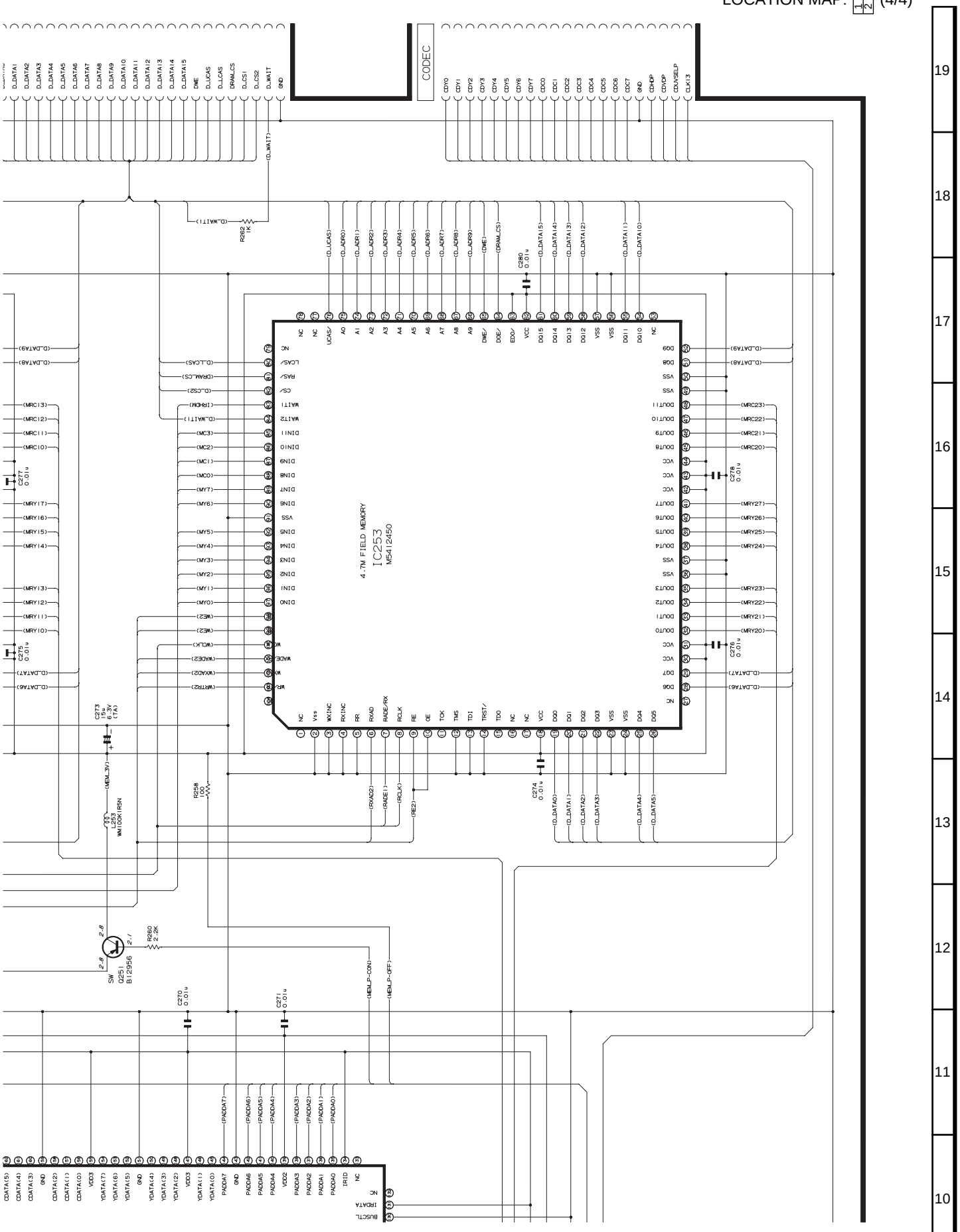


LOCATION MAP: 1 2 4 (3/4)



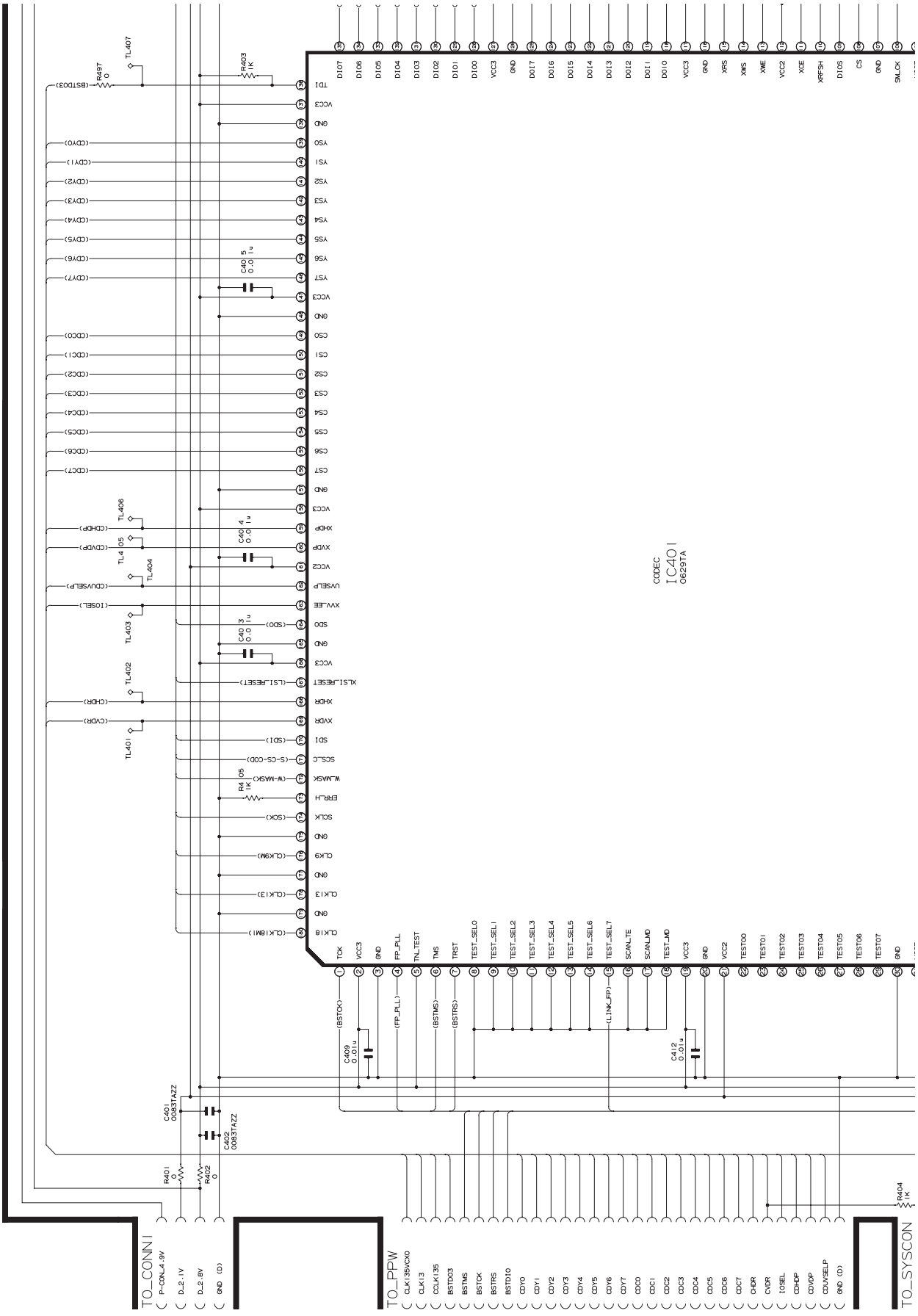
S R Q P O N M L K J

LOCATION MAP: 1 3 2 (4/4)

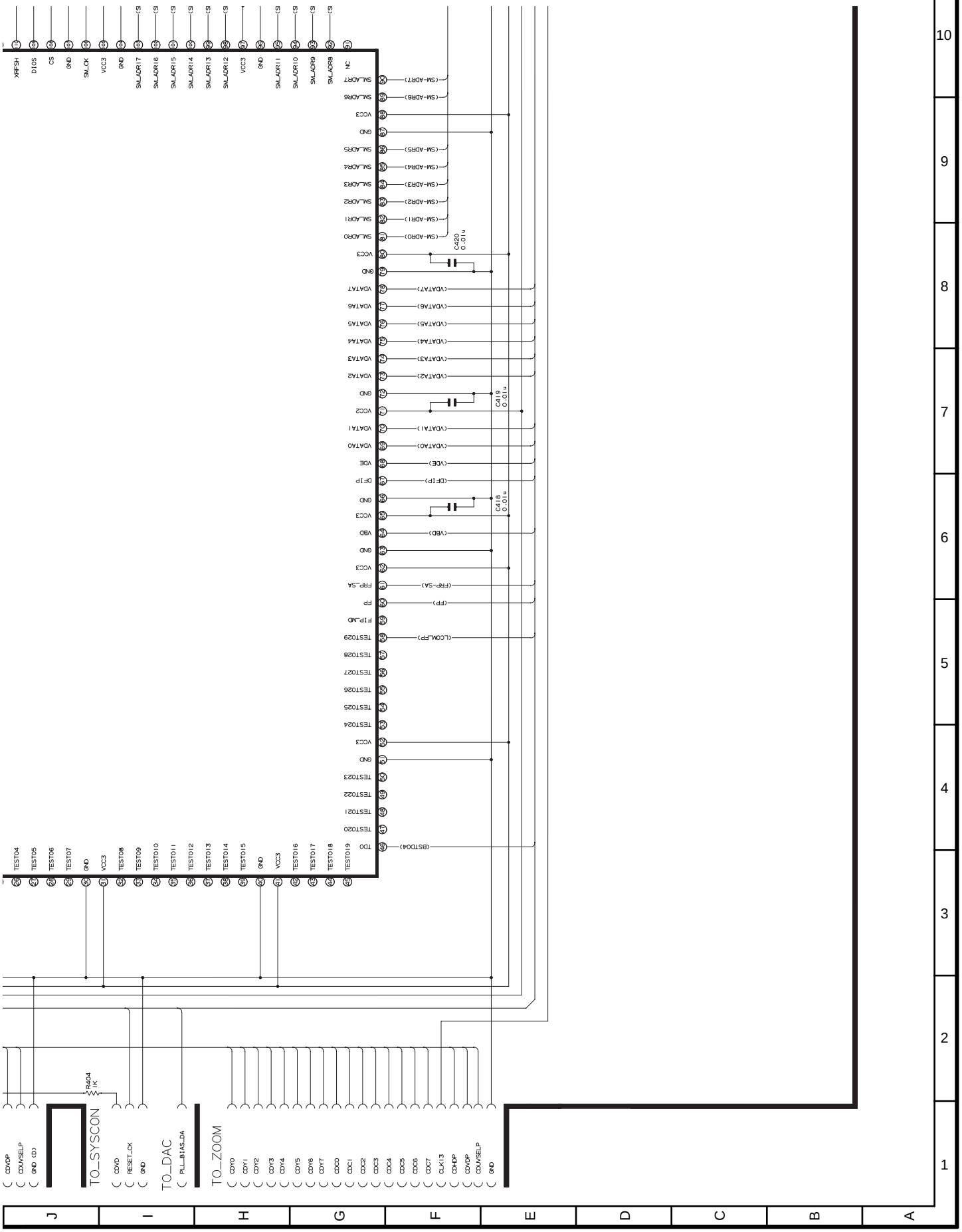


13-9. CODEC CIRCUIT SCHEMATIC DIAGRAM

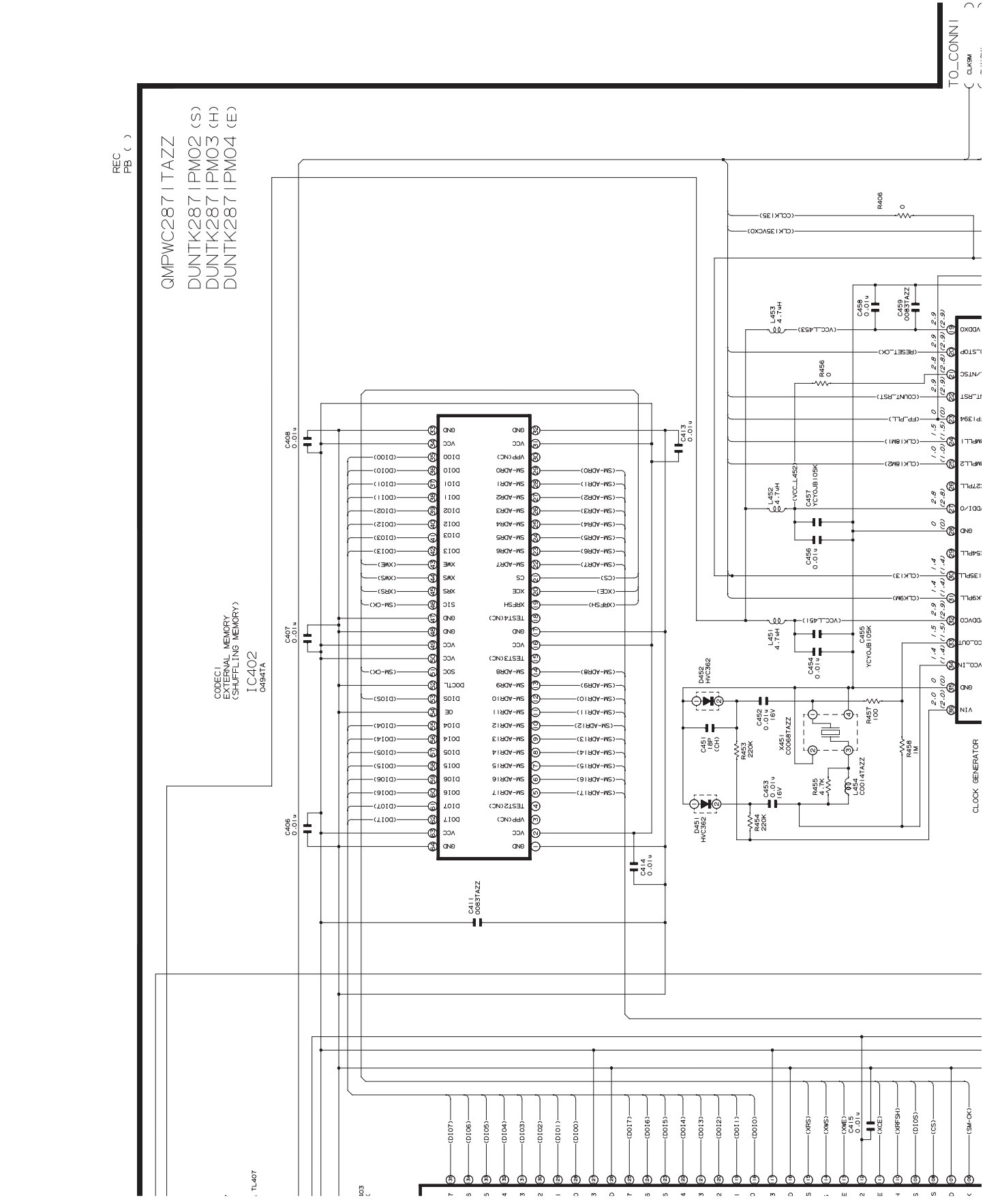
LOCATION MAP: 3 / 2 4 (1/4)



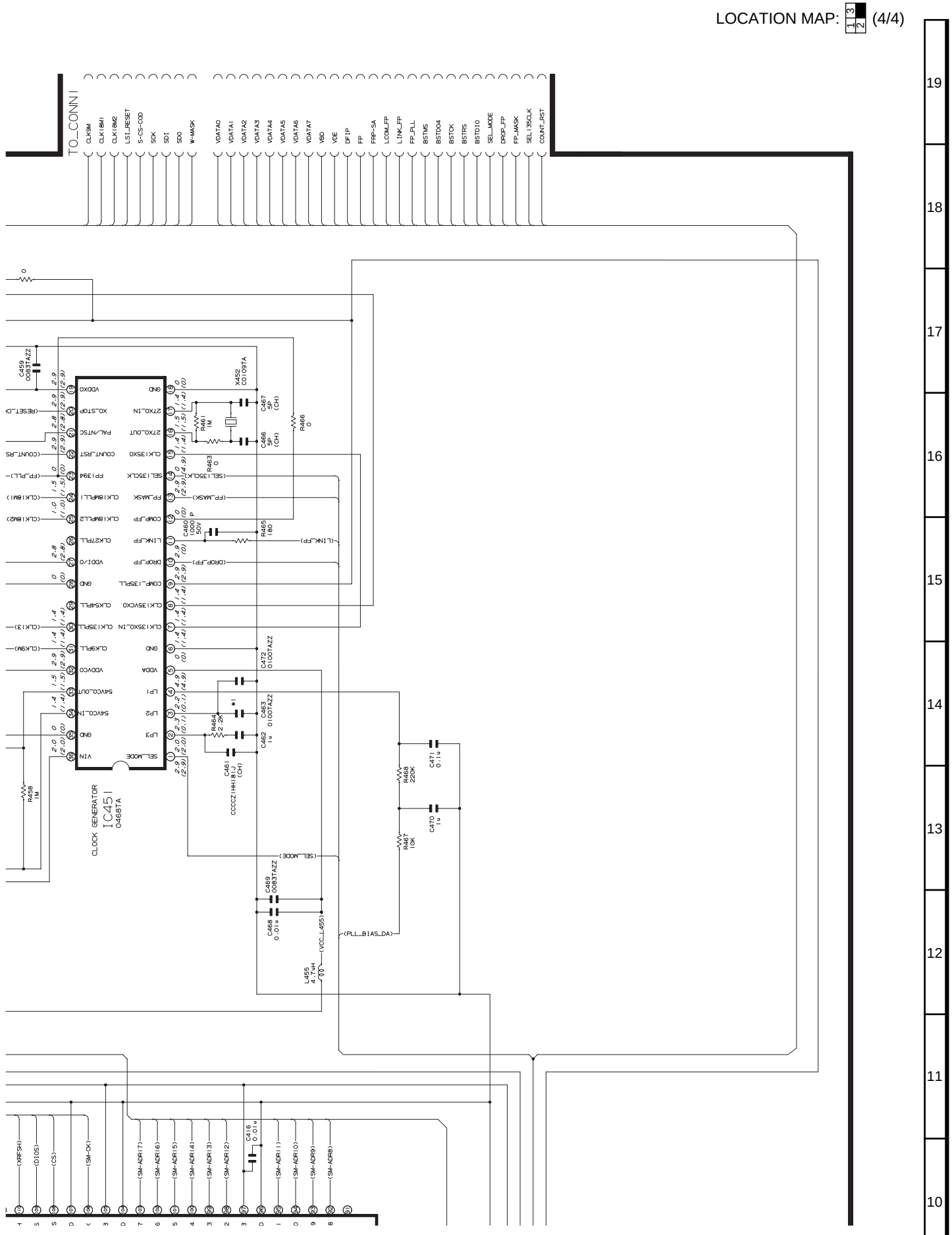
LOCATION MAP: 1 3 4 (2/4)



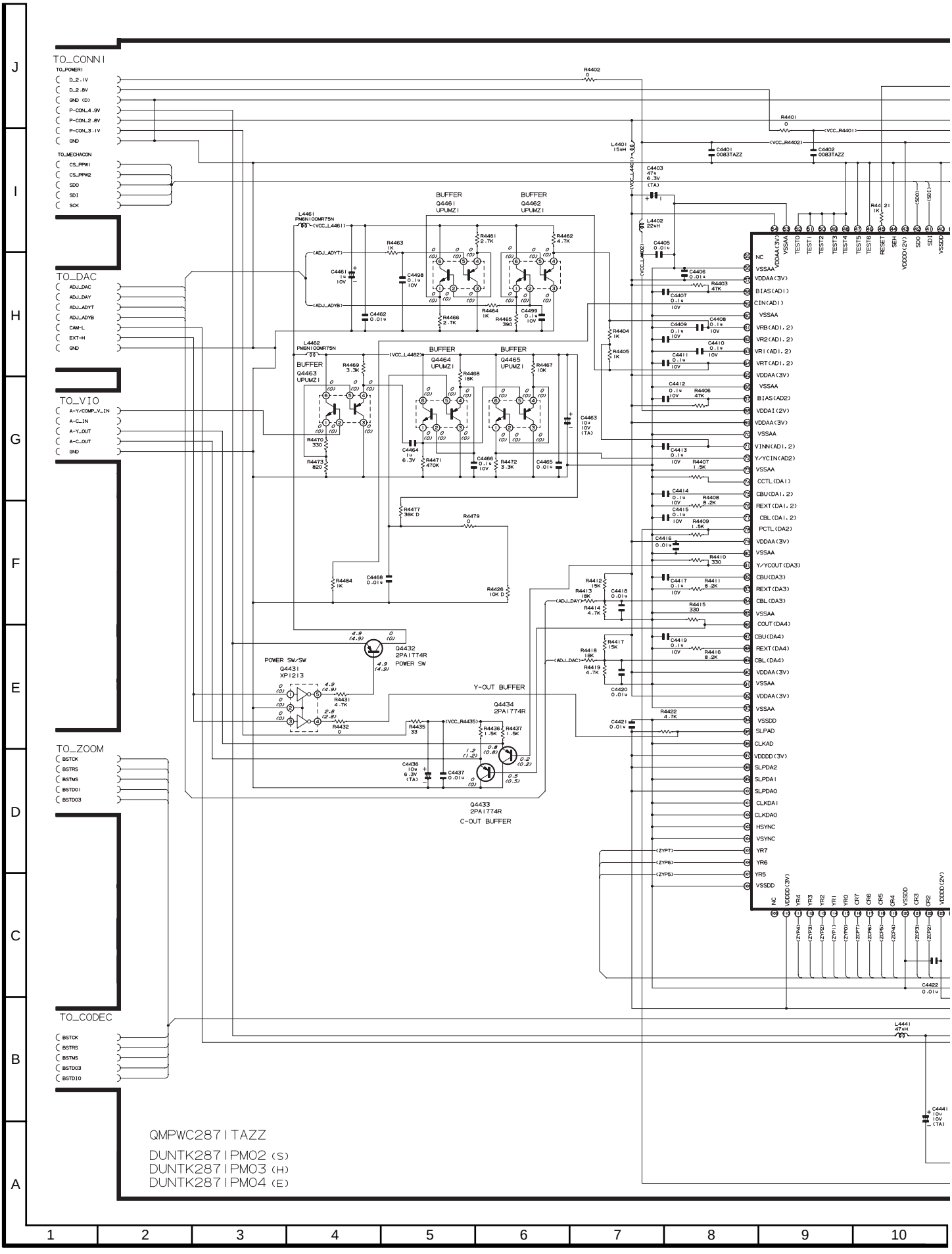
LOCATION MAP: 1 2 4 (3/4)

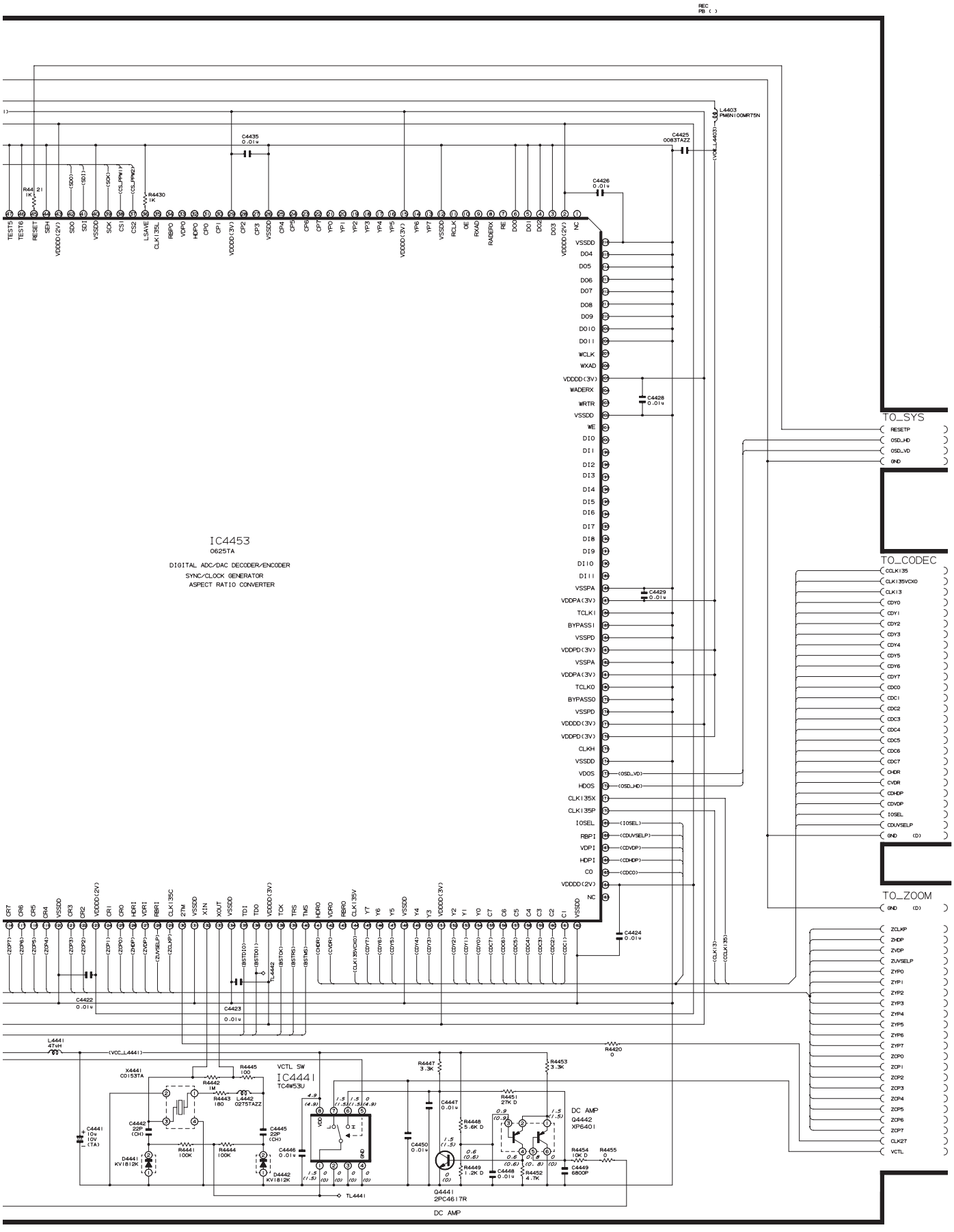


LOCATION MAP: 1 2 3 (4/4)



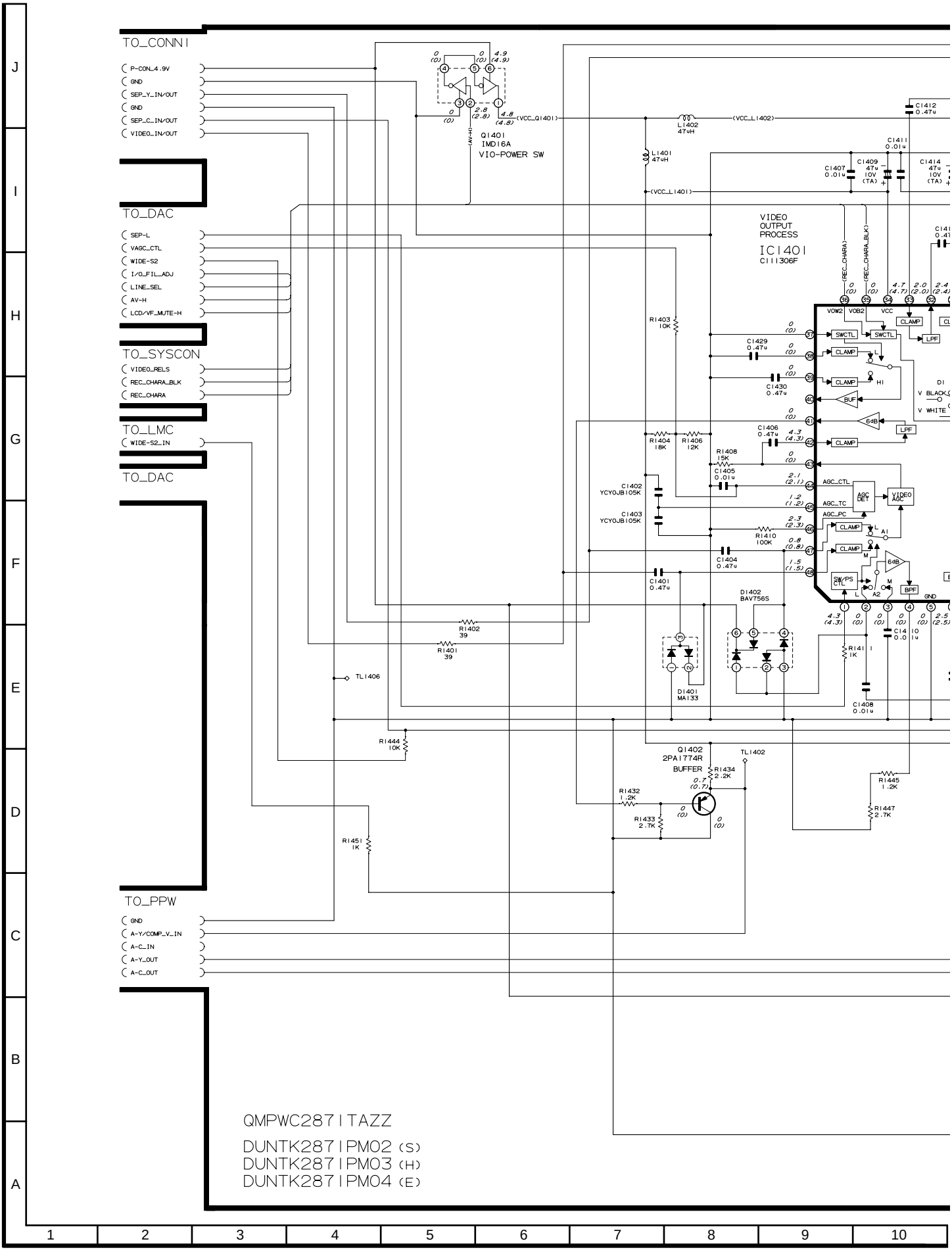
13-10. PPW CIRCUIT SCHEMATIC DIAGRAM

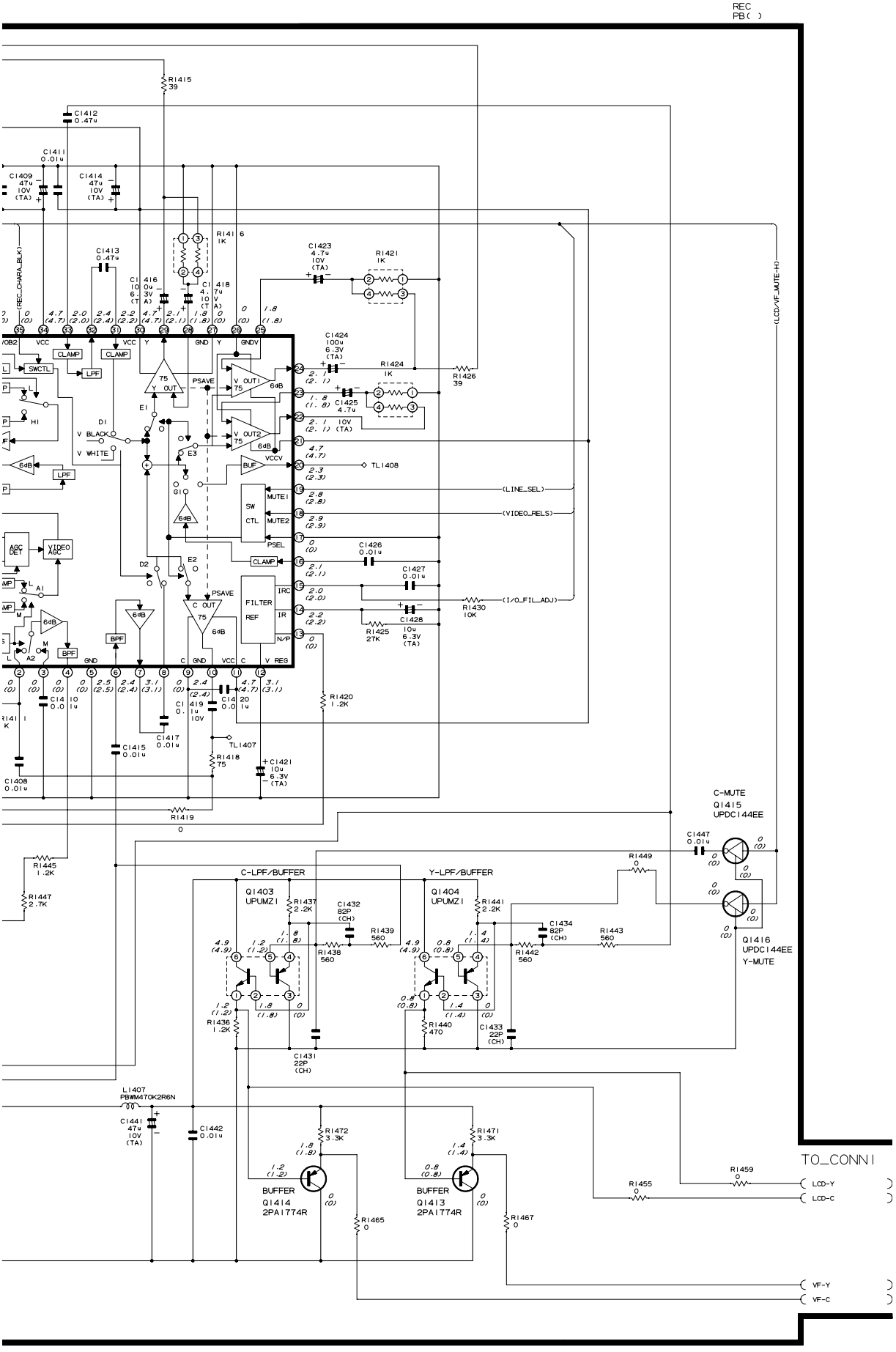




10	11	12	13	14	15	16	17	18	19

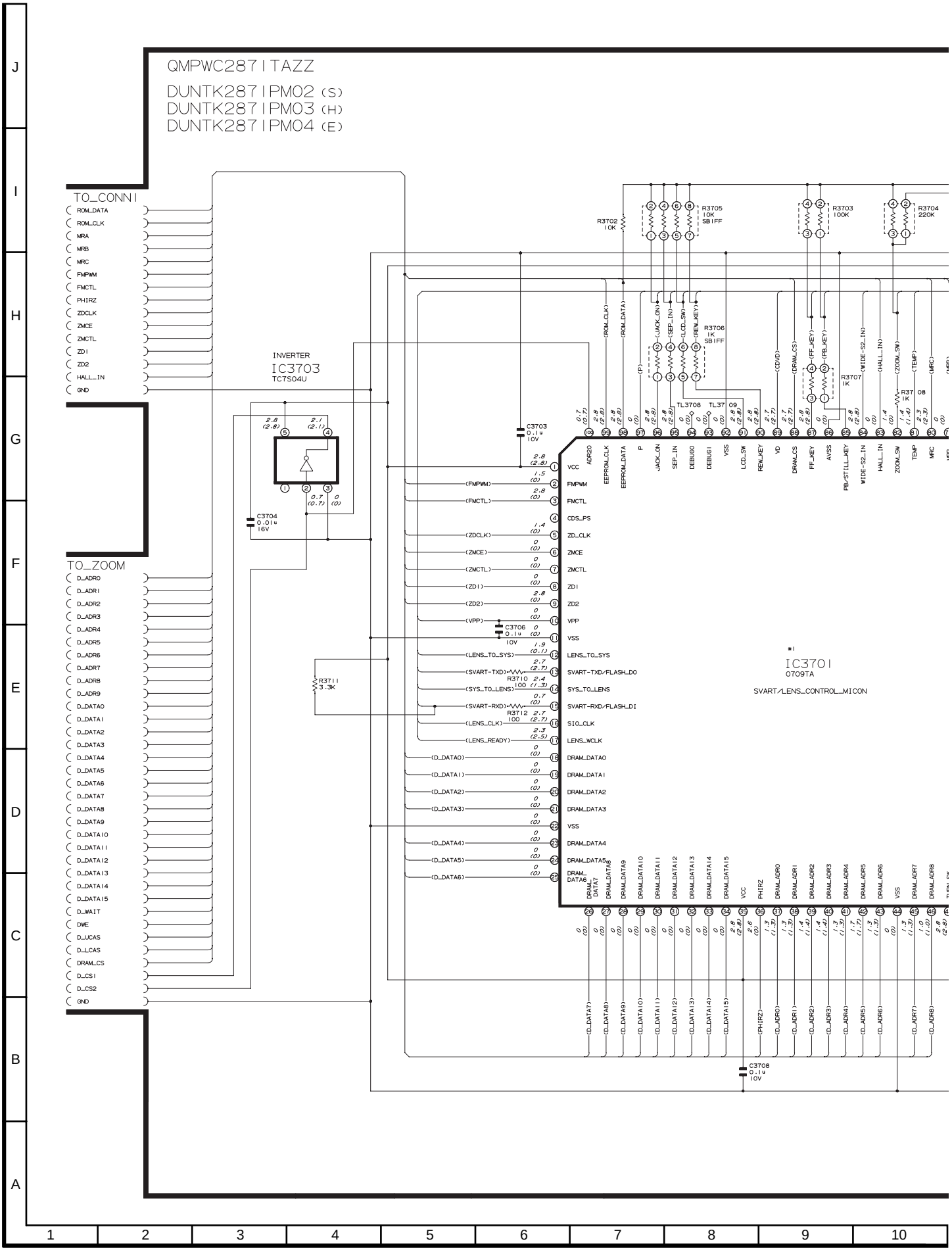
13-11. VIDEO I/O CIRCUIT SCHEMATIC DIAGRAM

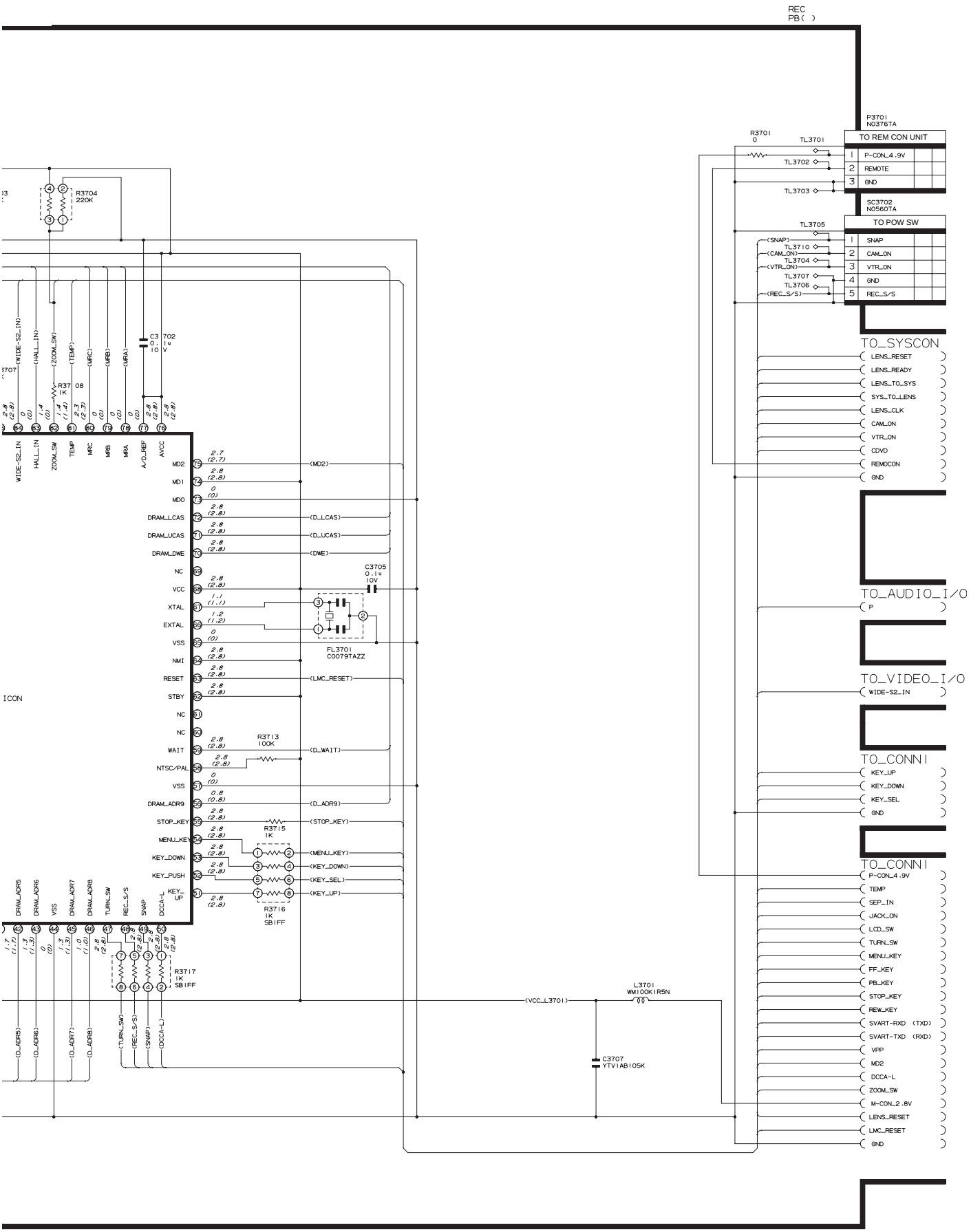




10	11	12	13	14	15	16	17	18	19

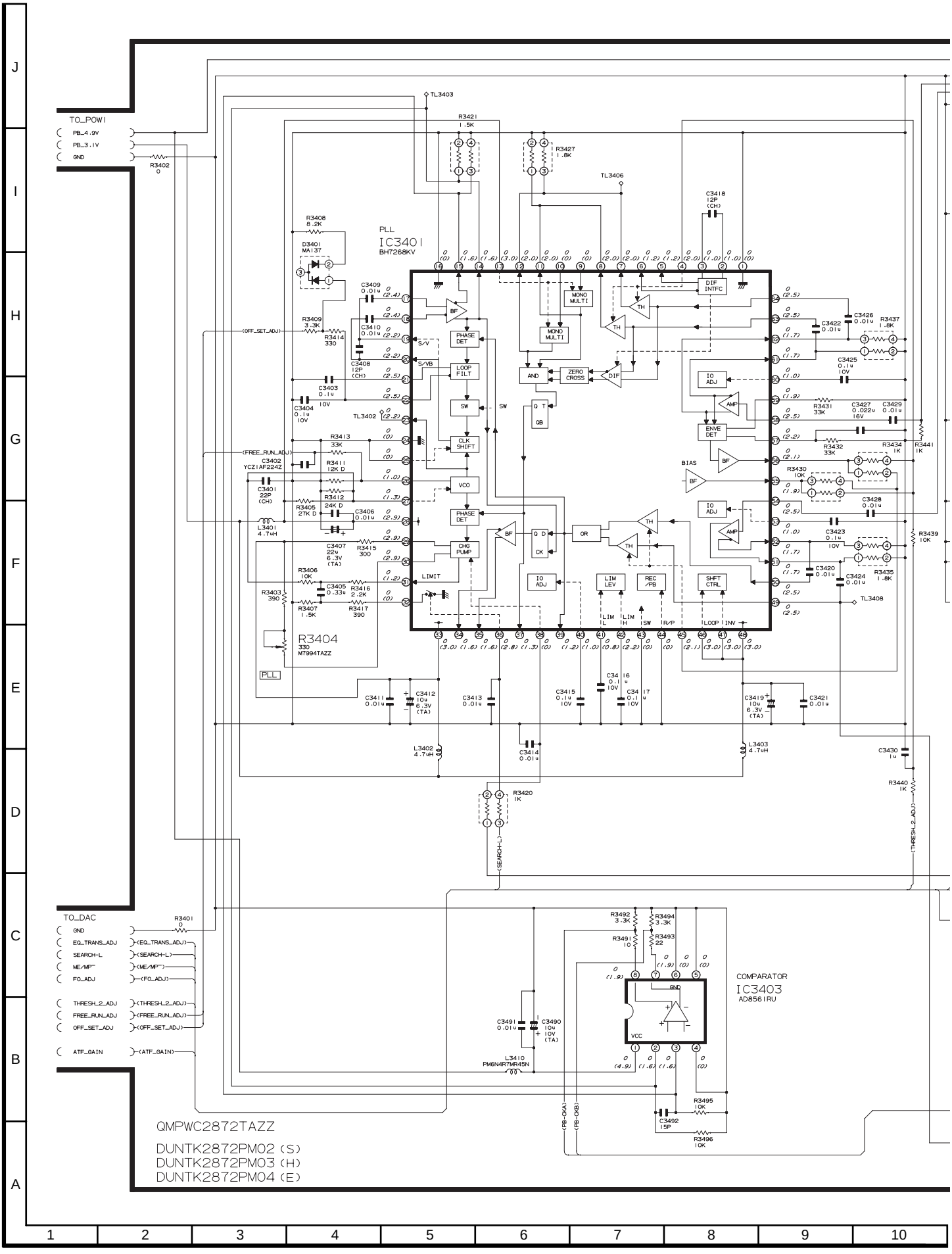
13-12. SVART LENS MICON CIRCUIT SCHEMATIC DIAGRAM

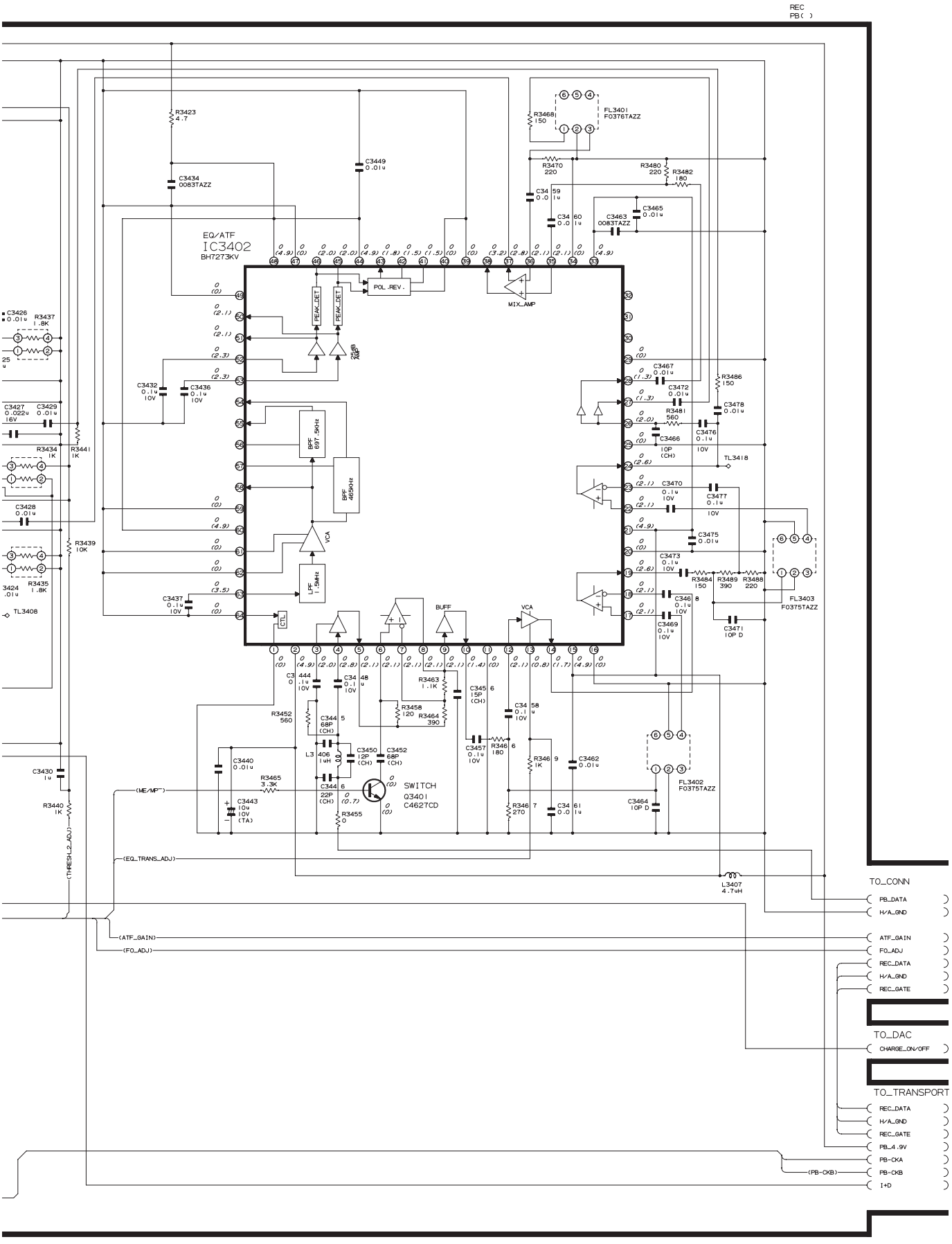




10	11	12	13	14	15	16	17	18	19

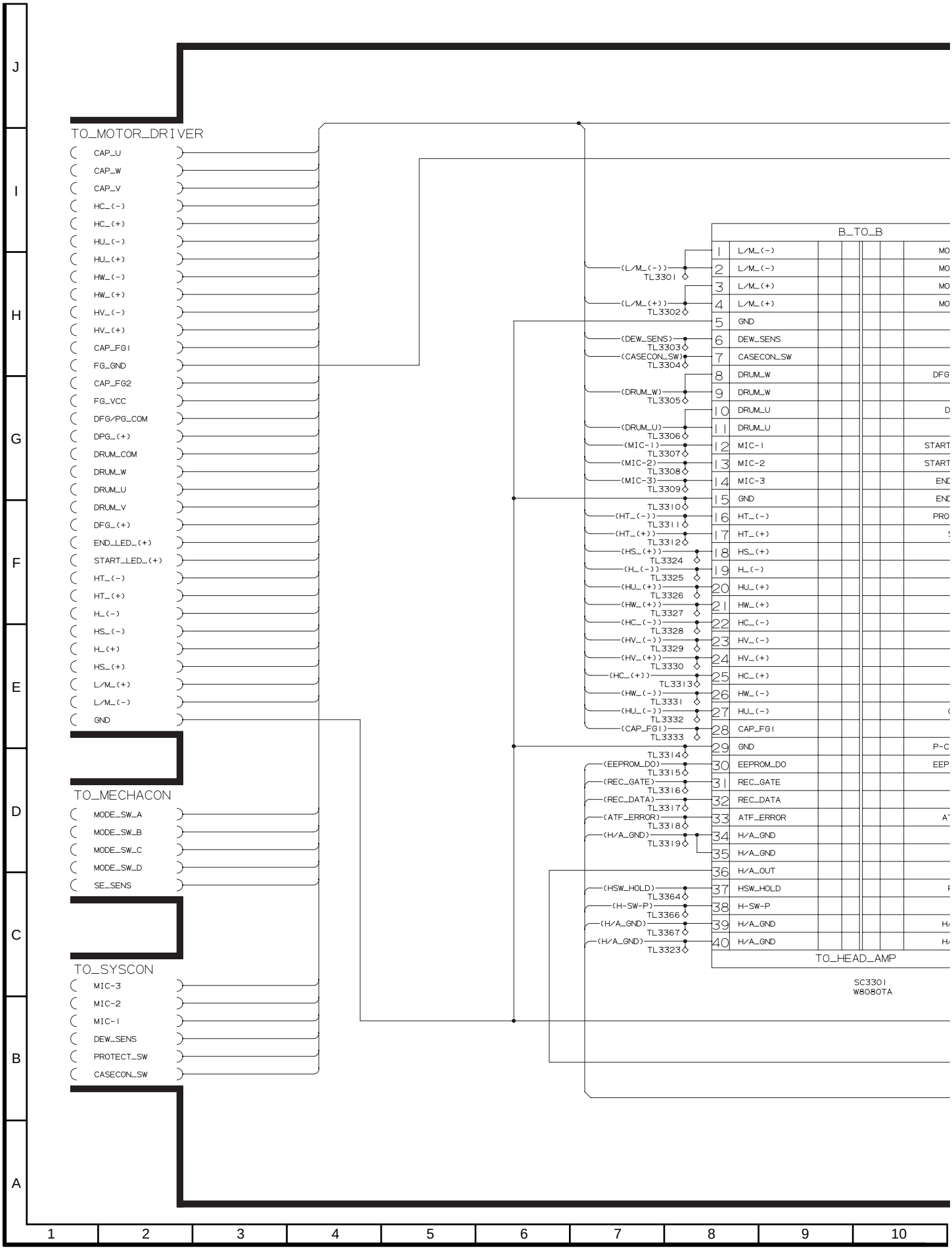
13-13. EQ/PLL CIRCUIT SCHEMATIC DIAGRAM

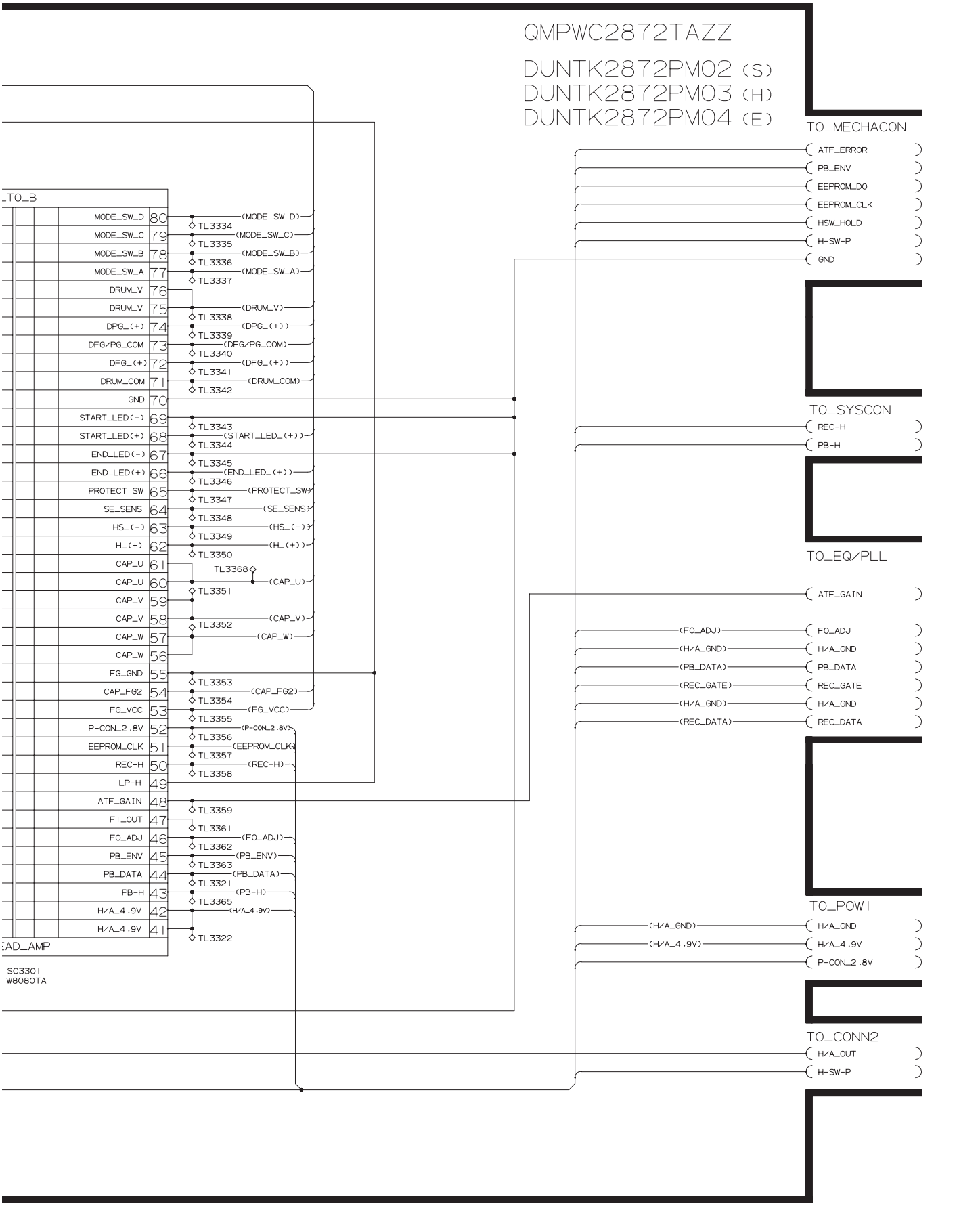




10	11	12	13	14	15	16	17	18	19

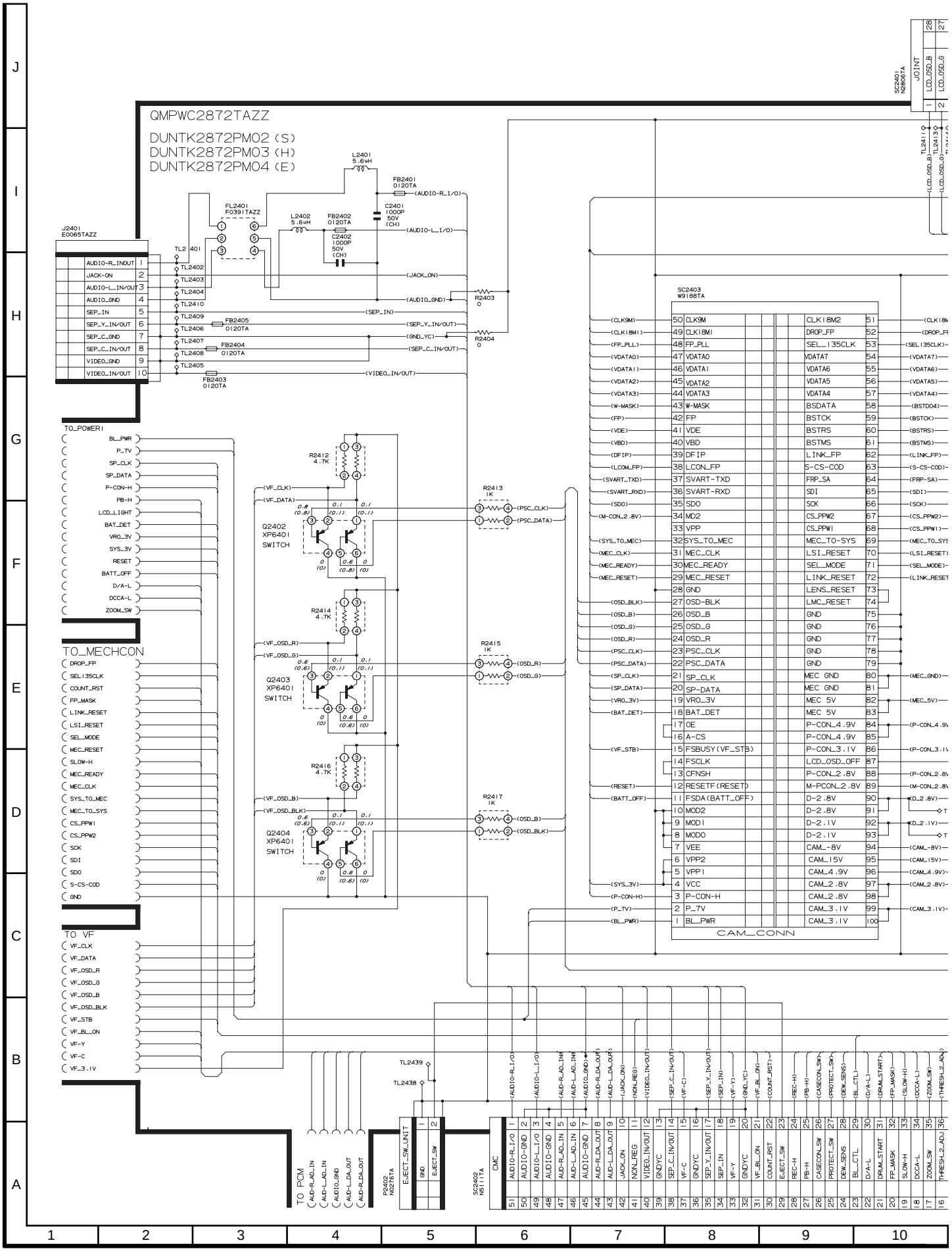
13-14. CONNECTION(B-B) CIRCUIT SCHEMATIC DIAGRAM

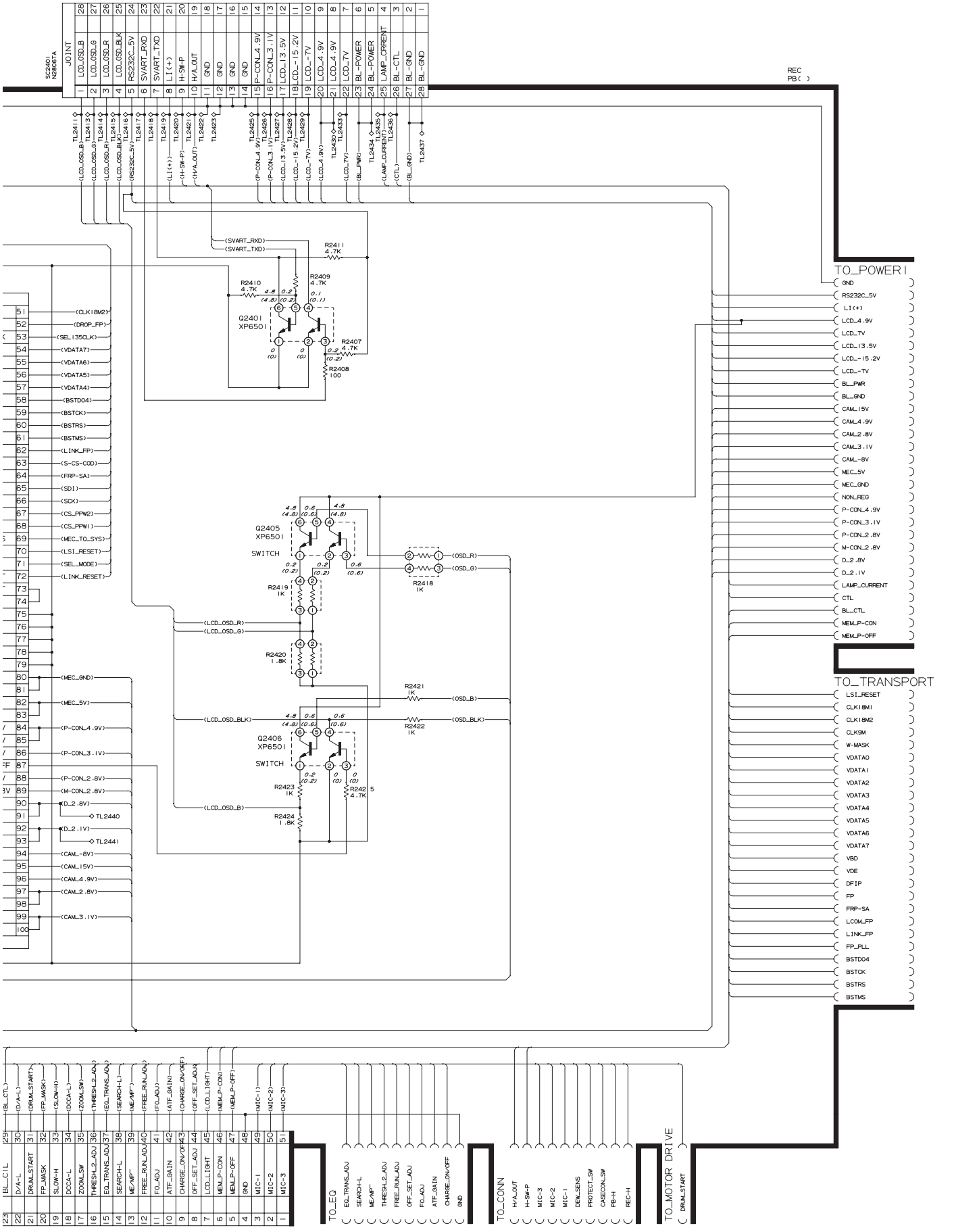




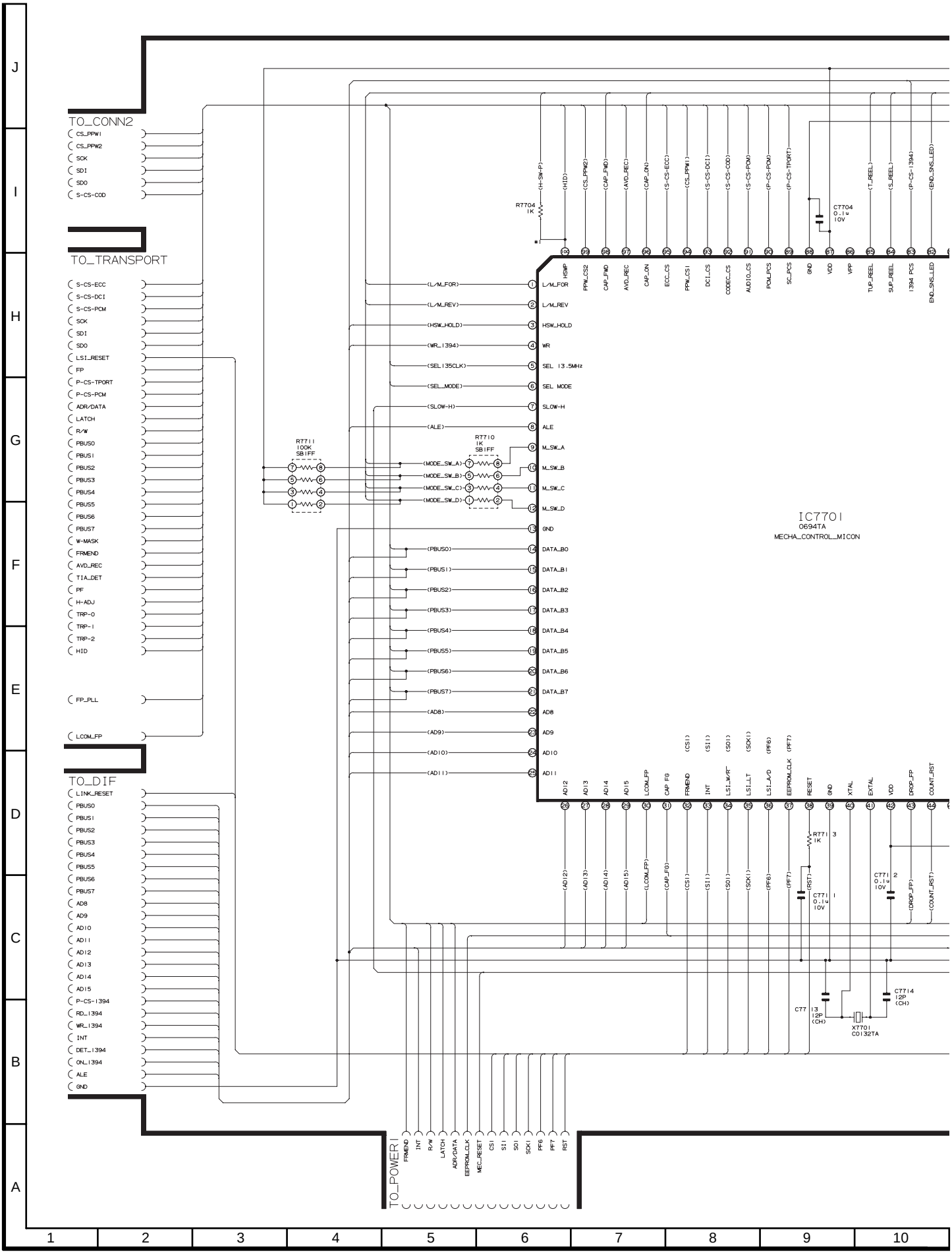
10	11	12	13	14	15	16	17	18	19

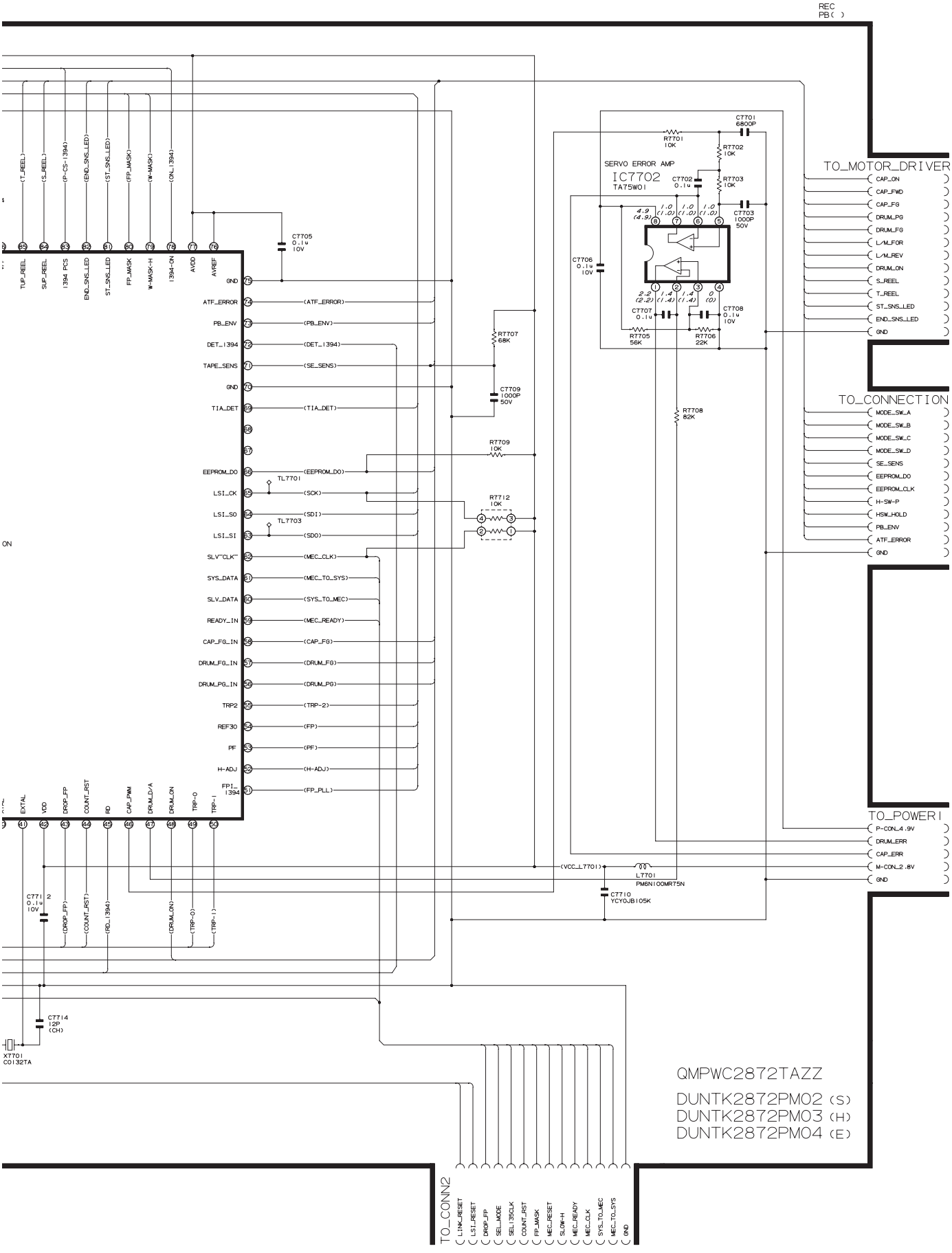
13-15. CONN2 CIRCUIT SCHEMATIC DIAGRAM




SC2401
N28067A
JOINT
LCD_OSD_B
LCD_OSD_G
LCD_OSD_R
LCD_OSD_BLK
RS232C_5V
SVART_RXD
SVART_TXD
LI(+)
H-SW-P
H/A_OUT
GND
LCD_-7V
LCD_4.9V
LCD_7V
BL_POWER
LAMP_CURRENT
BL_CTL
BL_GND
REC
PB( )
TO_POWER1
TO_TRANSPORT
TO_MOTOR DRIVE
TO_EQ
TO_CONN
R2411 4.7K
R2409 4.7K
R2410 4.7K
R2407 4.7K
R2408 100
Q2401 XP6501
Q2405 XP6501
SWITCH
Q2406 XP6501
SWITCH
R2418 1K
R2419 1K
R2420 1.8K
R2421 1K
R2422 1K
R2423 1K
R2424 1.8K
R2425 4.7K
TL2440
TL2441

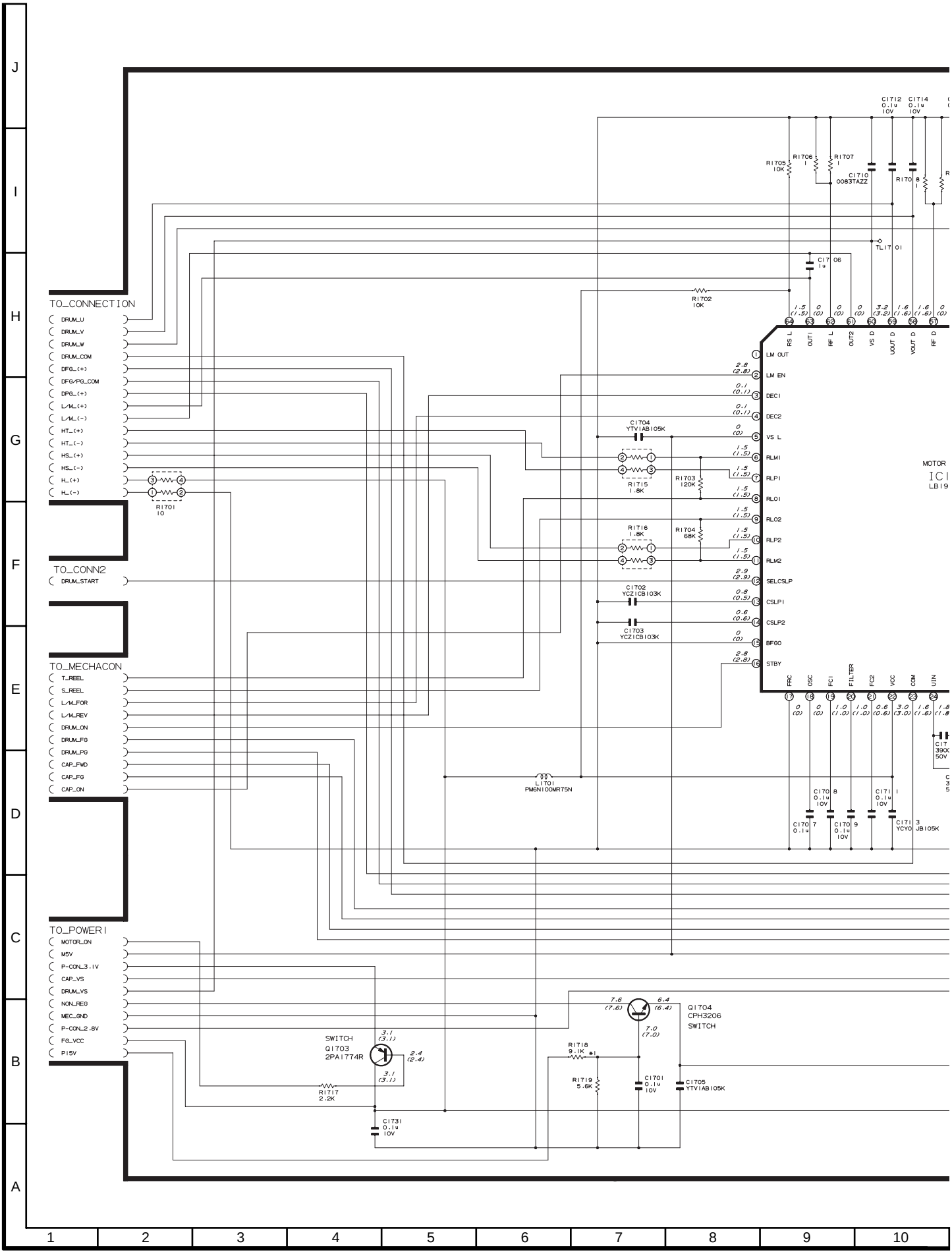
13-16. MECHACON CIRCUIT SCHEMATIC DIAGRAM

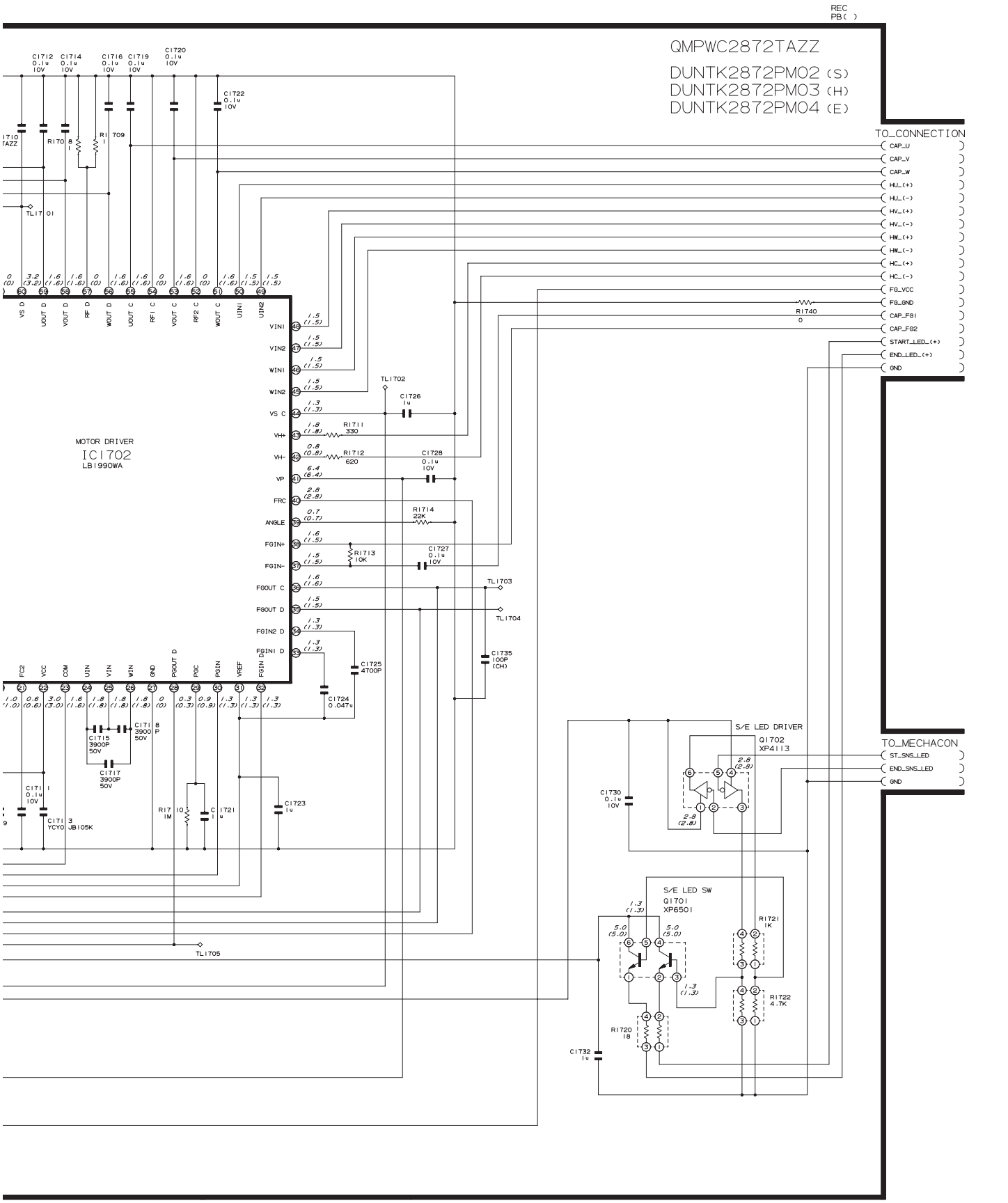




10	11	12	13	14	15	16	17	18	19

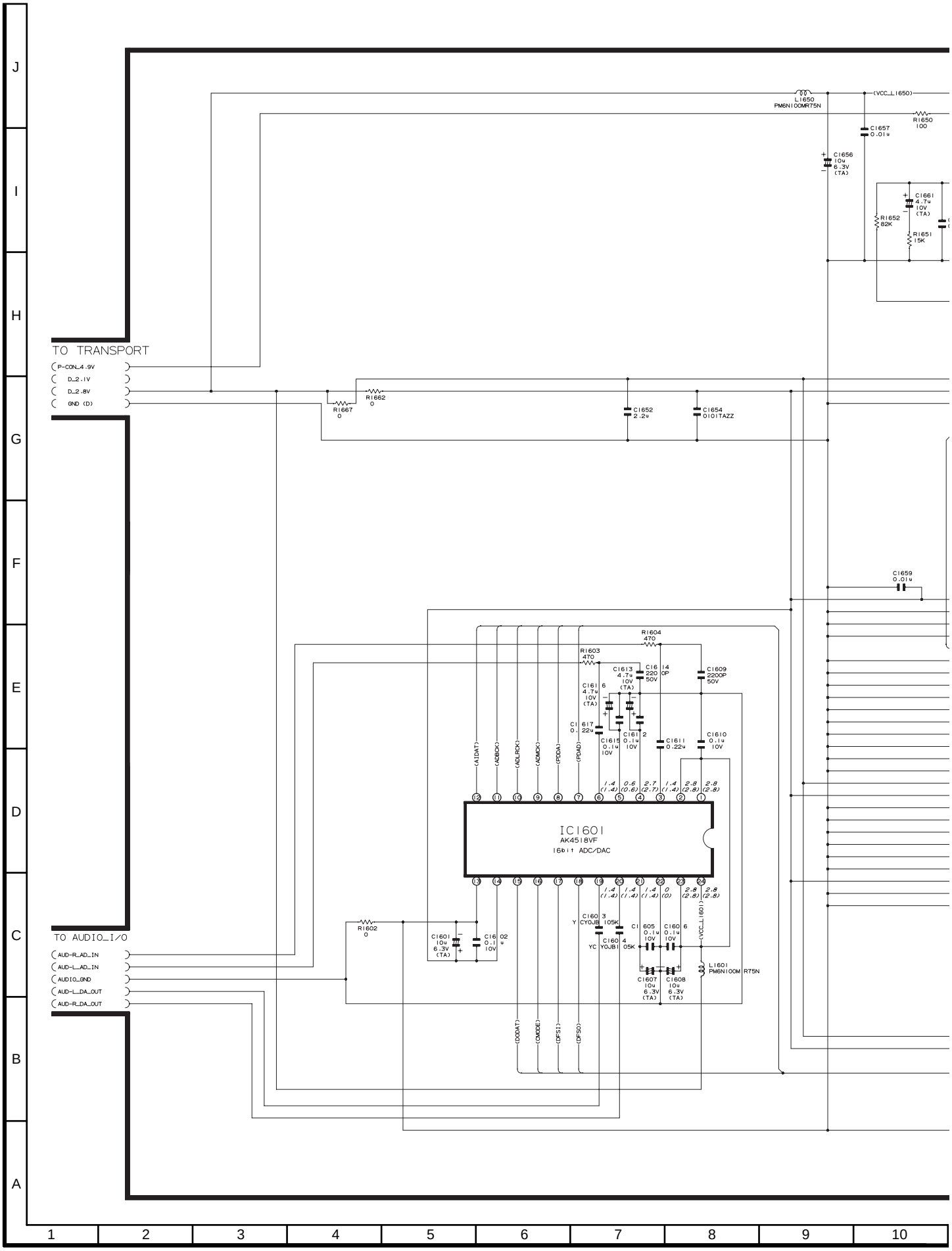
13-17. MOTOR DRIVE CIRCUIT SCHEMATIC DIAGRAM

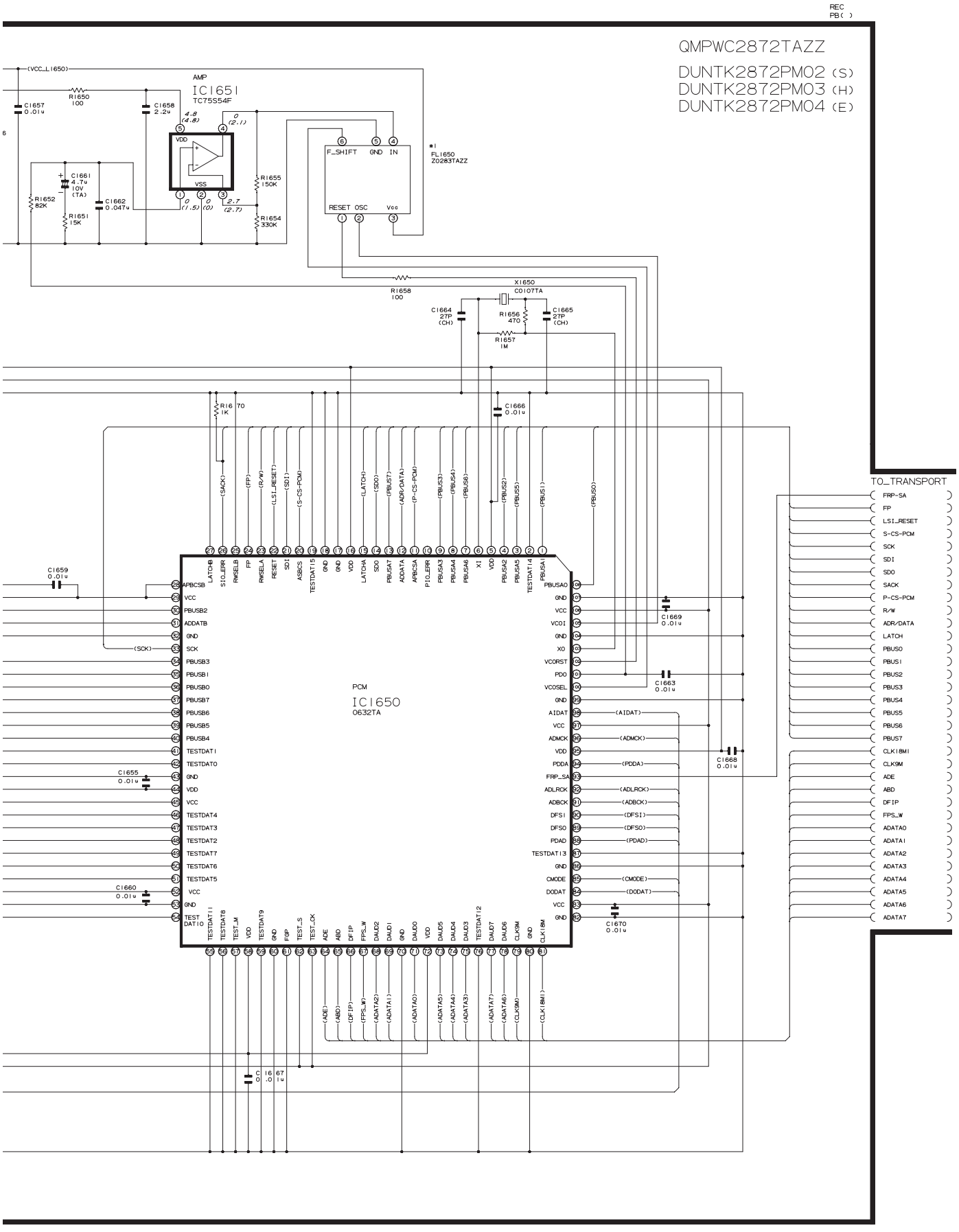




10	11	12	13	14	15	16	17	18	19

13-18. PCM CIRCUIT SCHEMATIC DIAGRAM

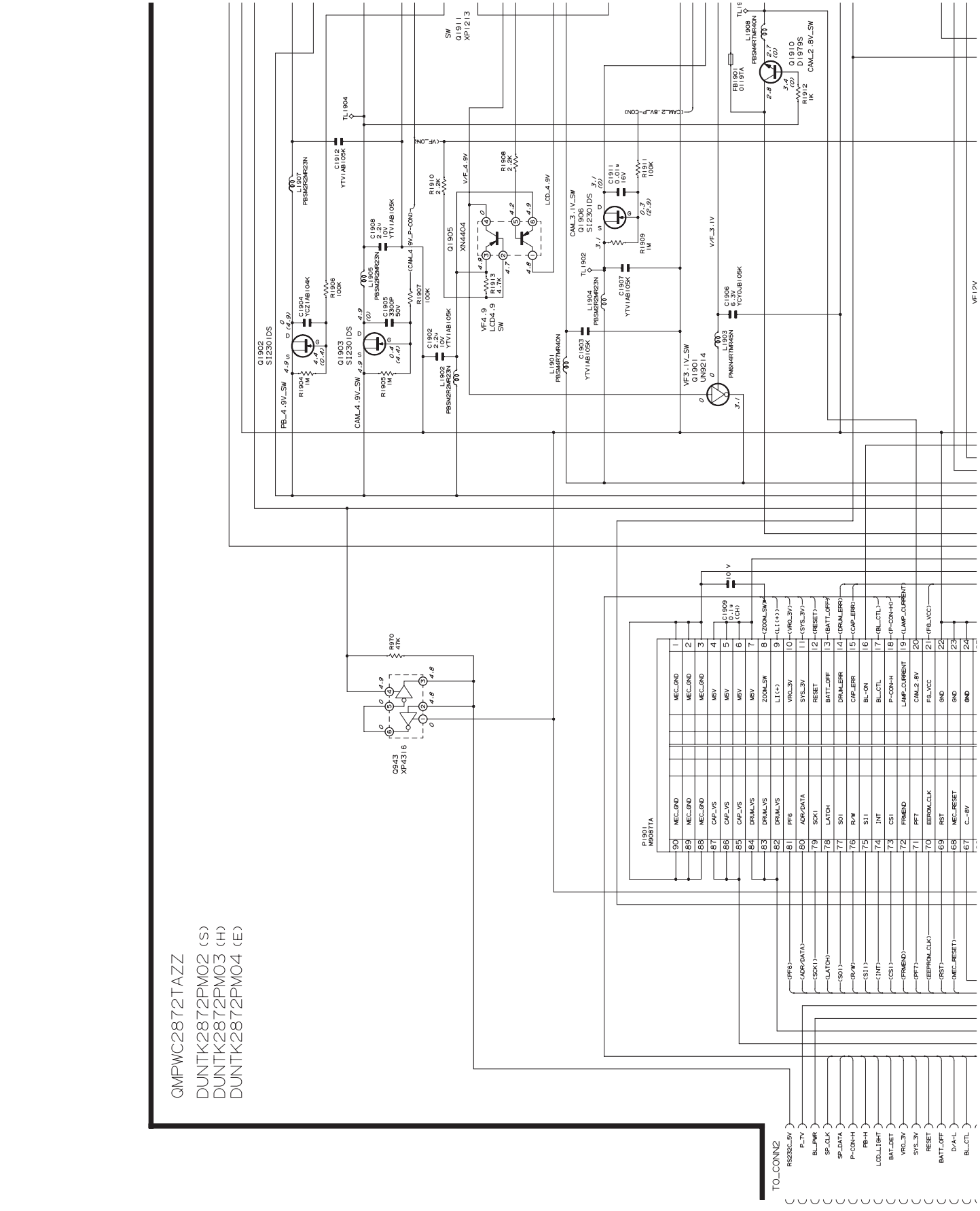




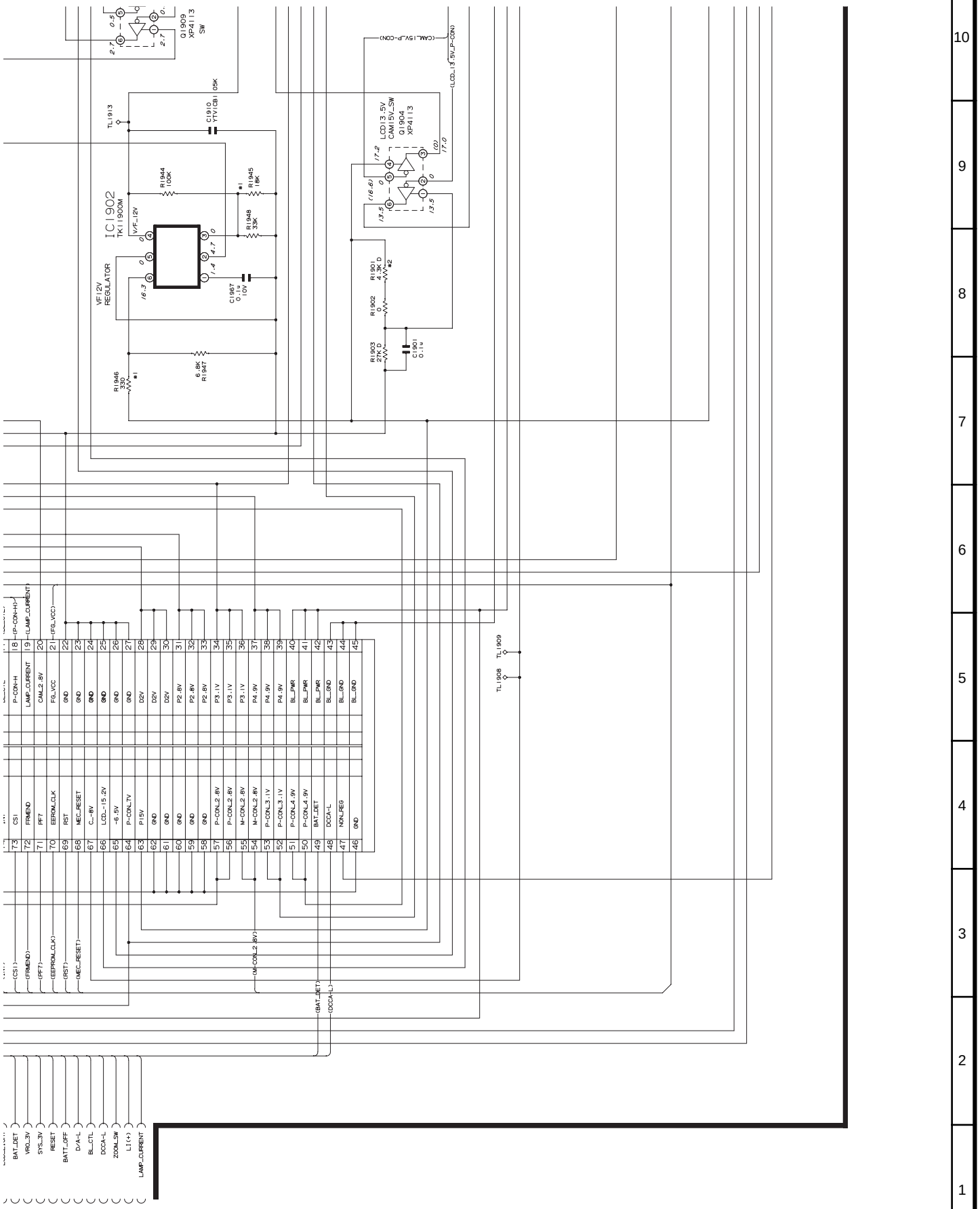
10	11	12	13	14	15	16	17	18	19

13-19. POWER1 CIRCUIT SCHEMATIC DIAGRAM

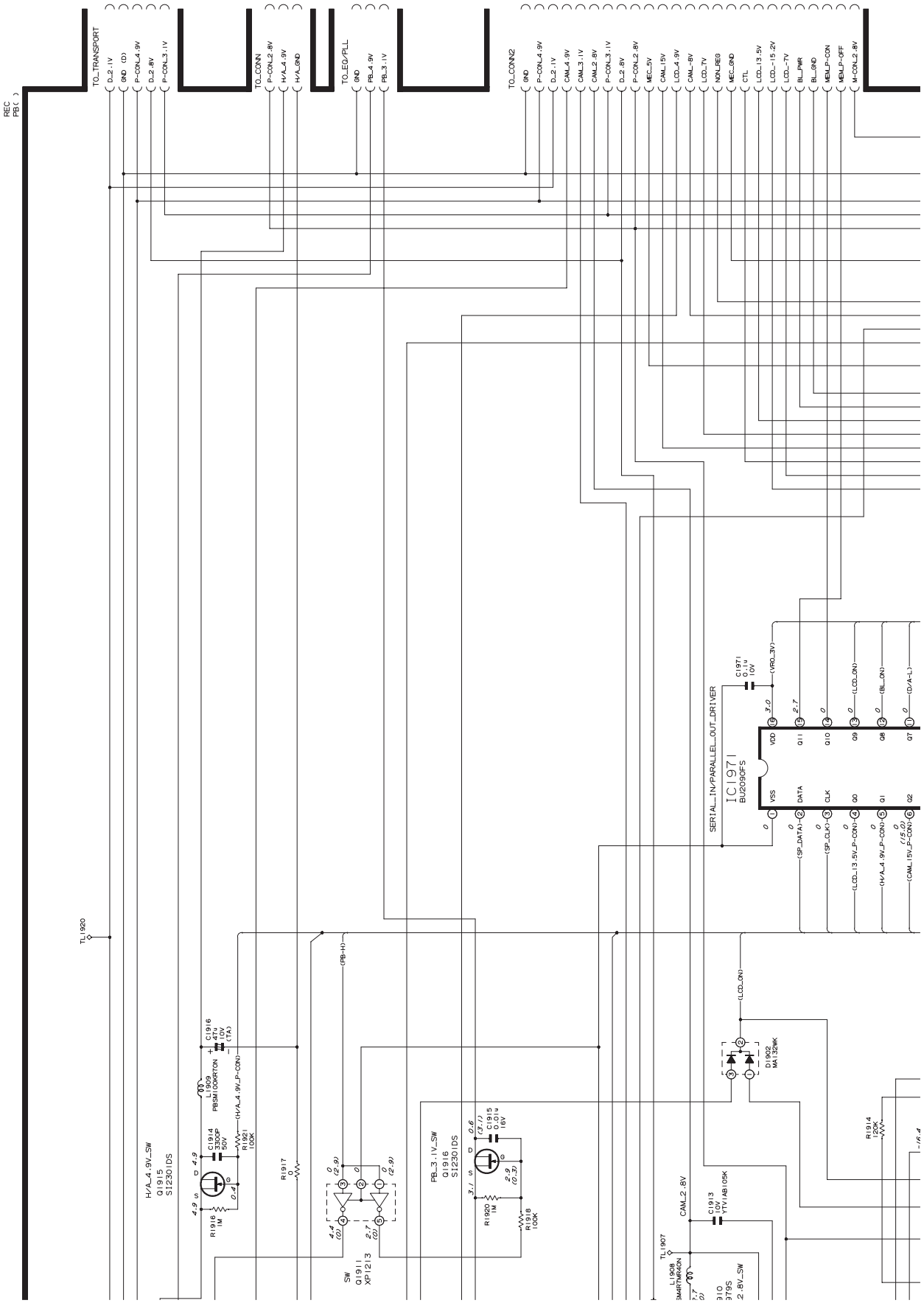
LOCATION MAP: 3 / 2 4 (1/4)



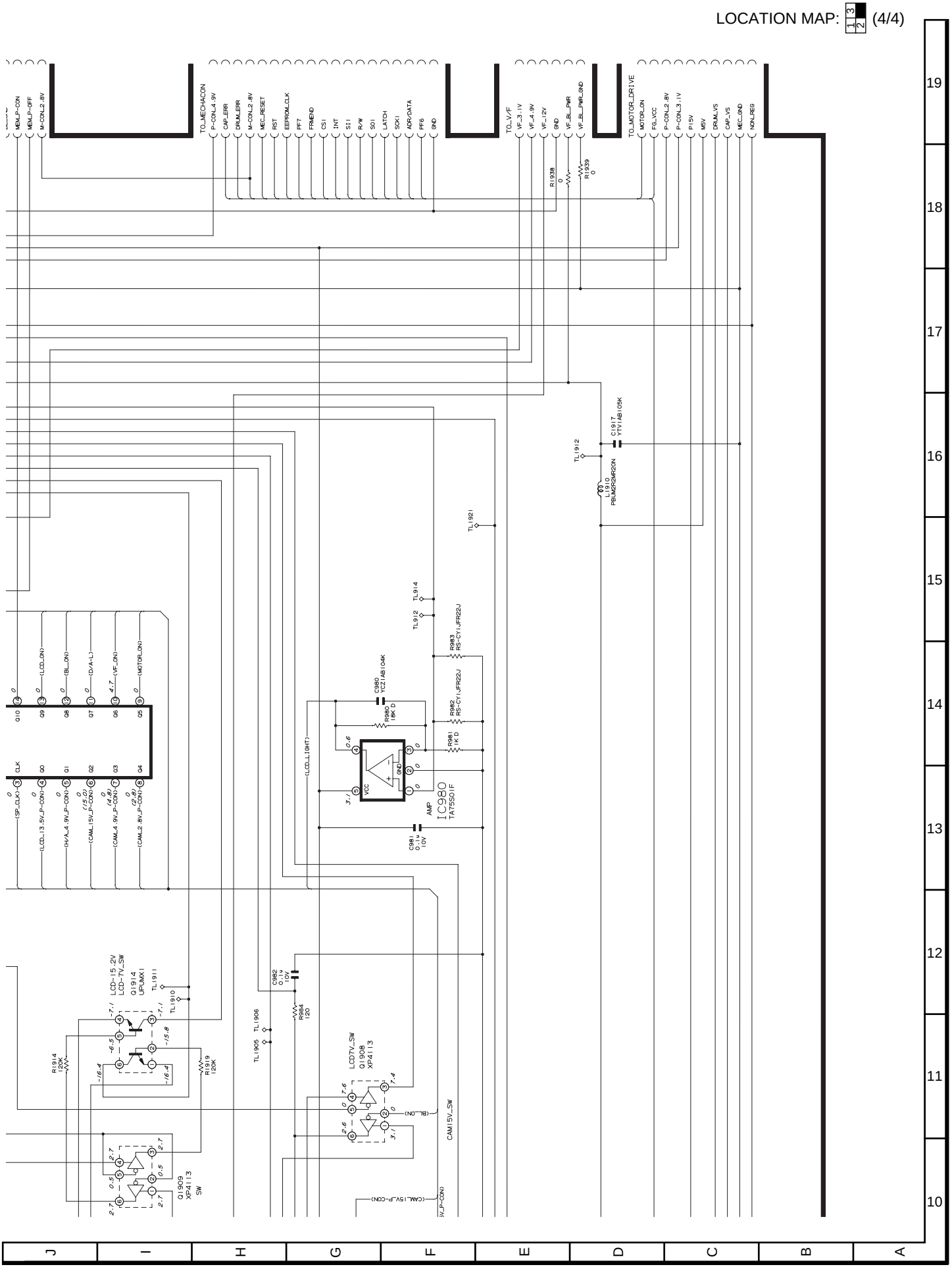
LOCATION MAP: 1 3 4 (2/4)



LOCATION MAP: 1 2 3 4 (3/4)

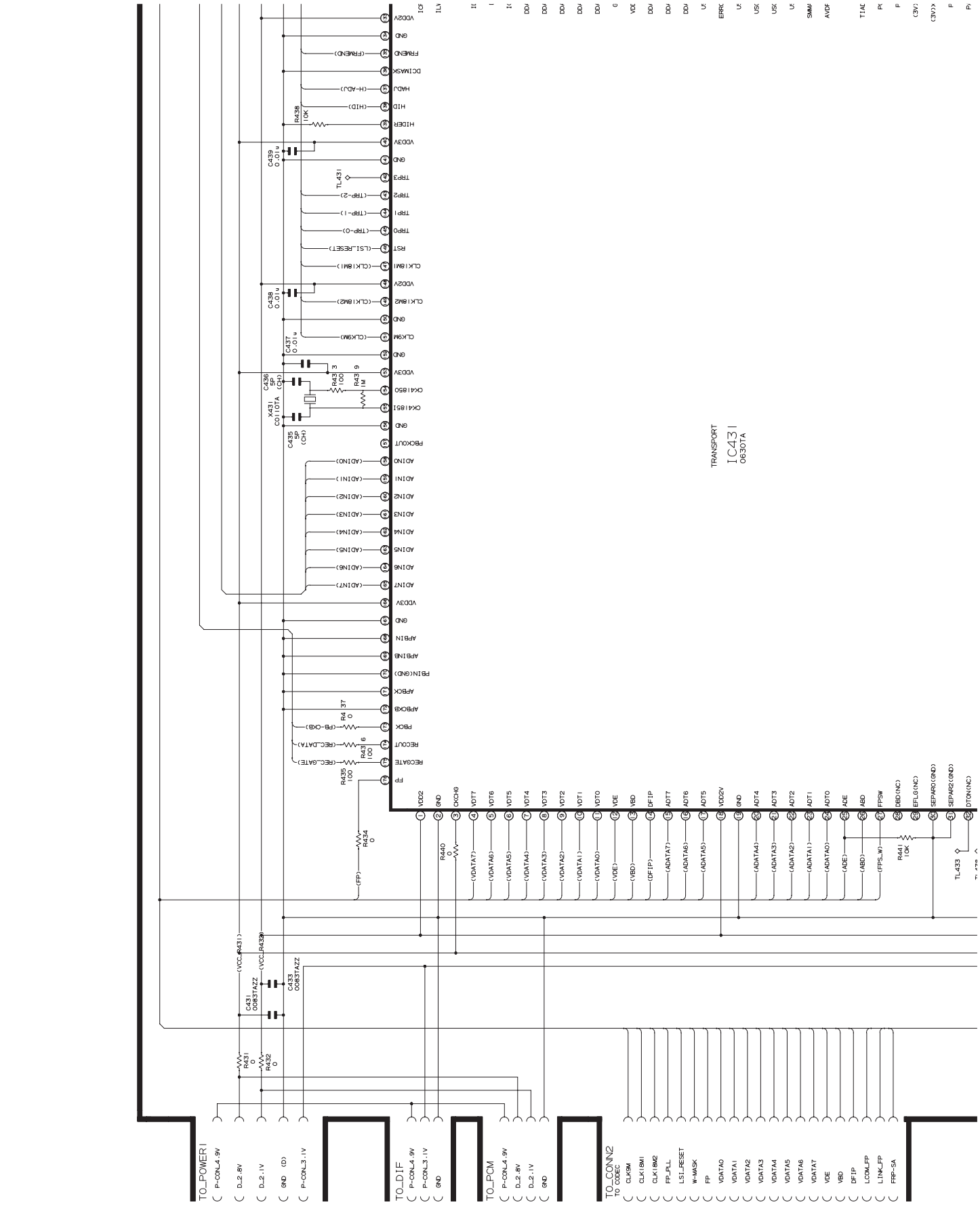


LOCATION MAP: 1 2 3 (4/4)

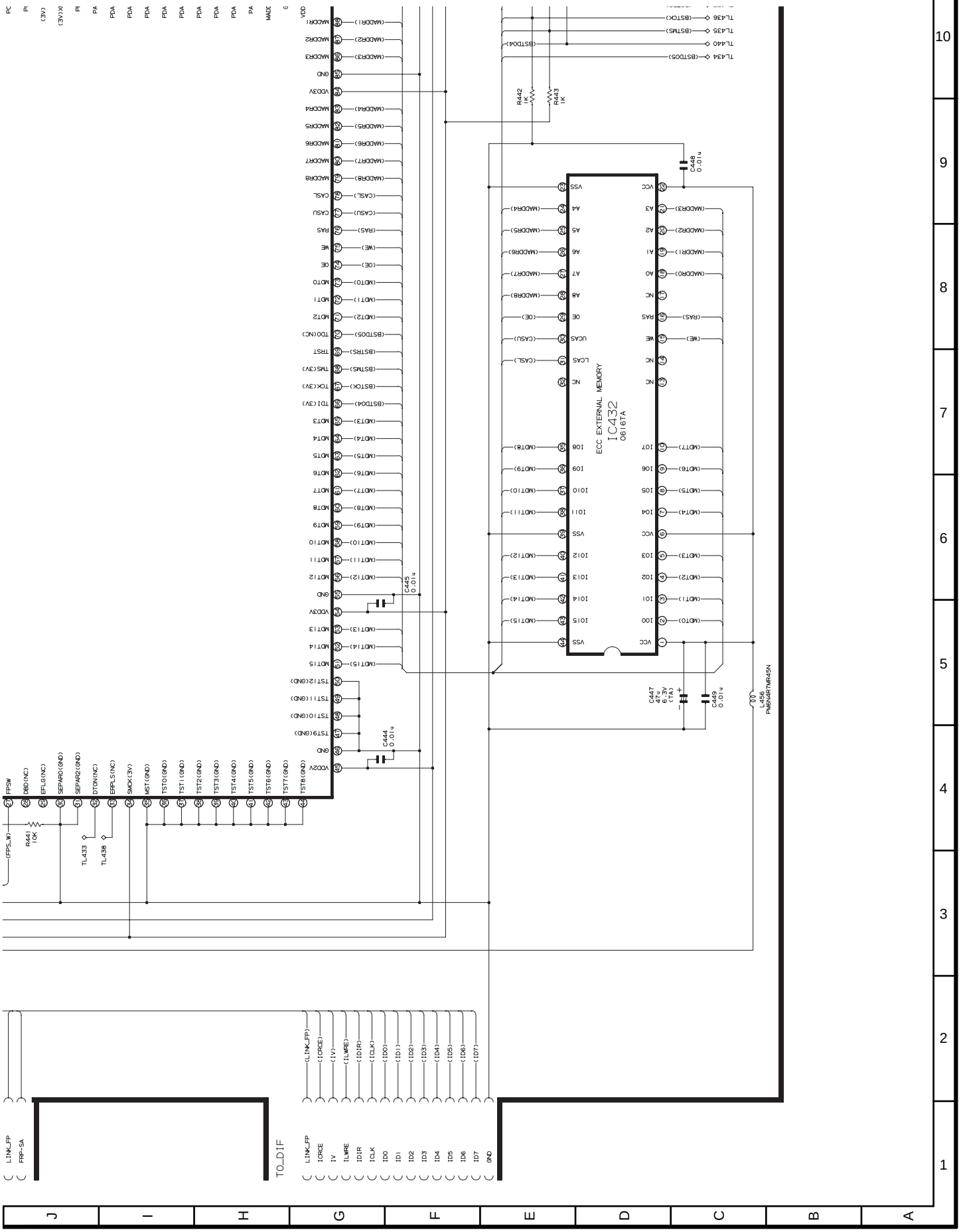


13-20. TRANSPORT CIRCUIT SCHEMATIC DIAGRAM

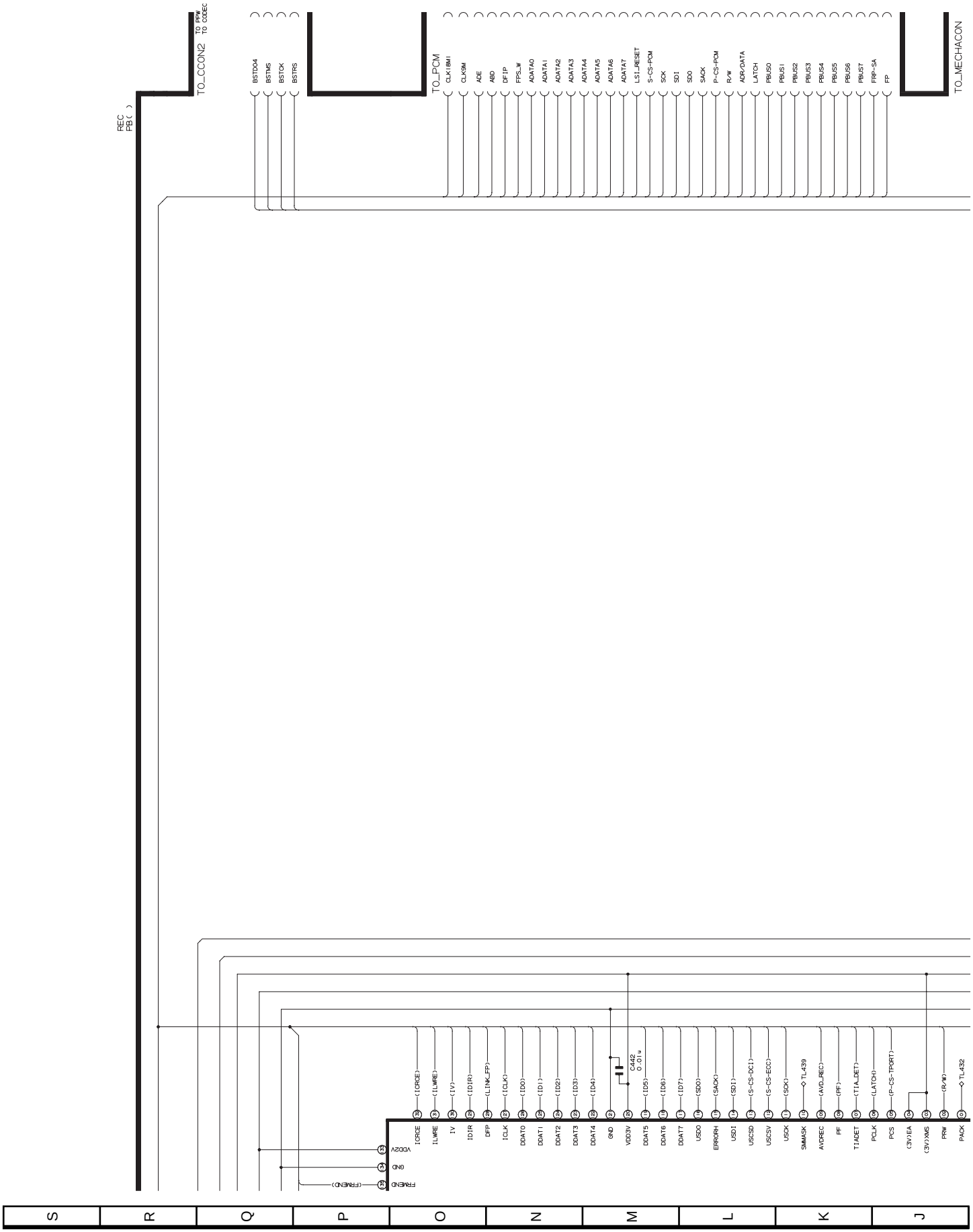
LOCATION MAP: 3 / 2 4 (1/4)



LOCATION MAP: 1 3 4 (2/4)

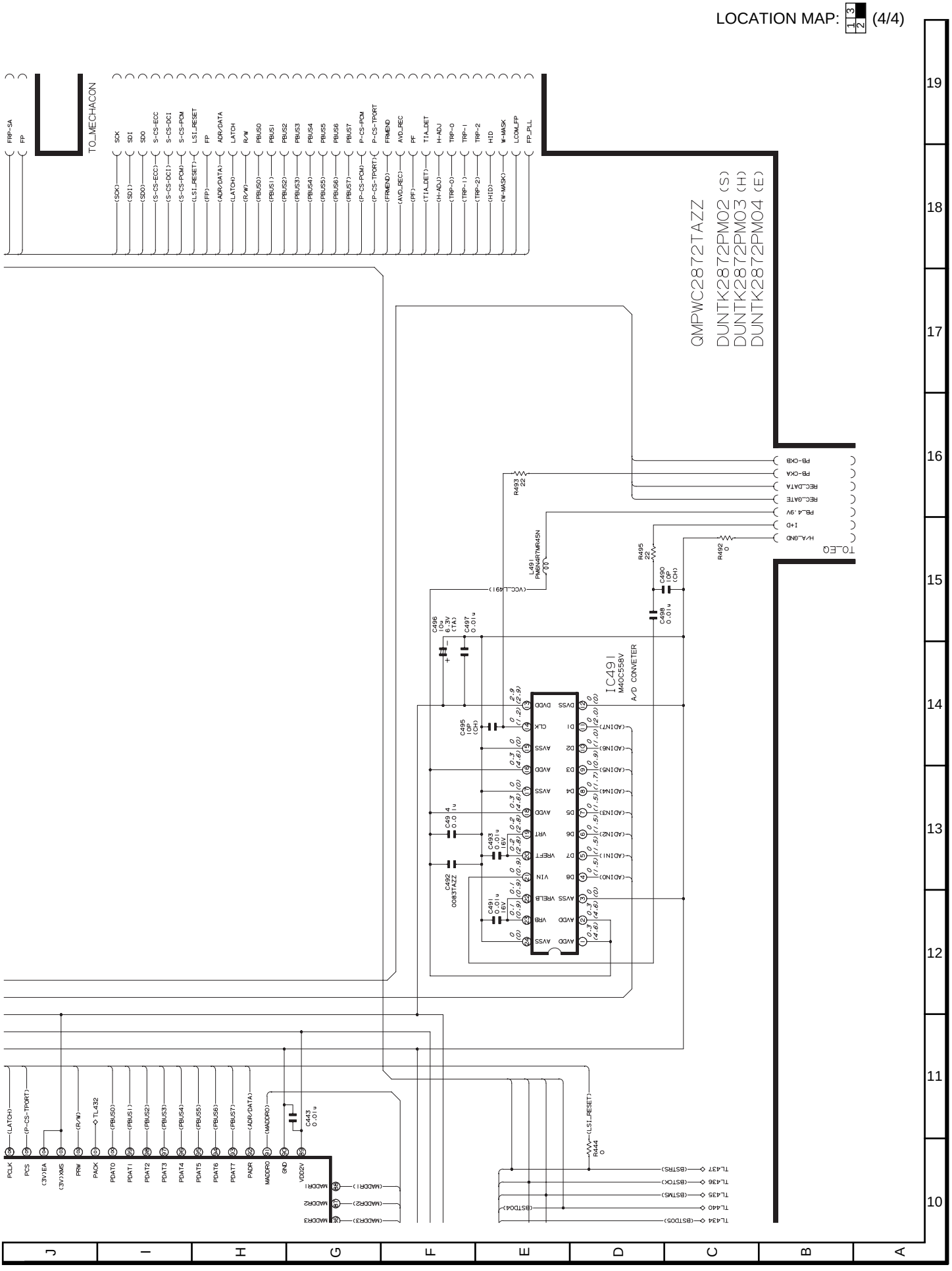


LOCATION MAP: 1 2 3 4 (3/4)

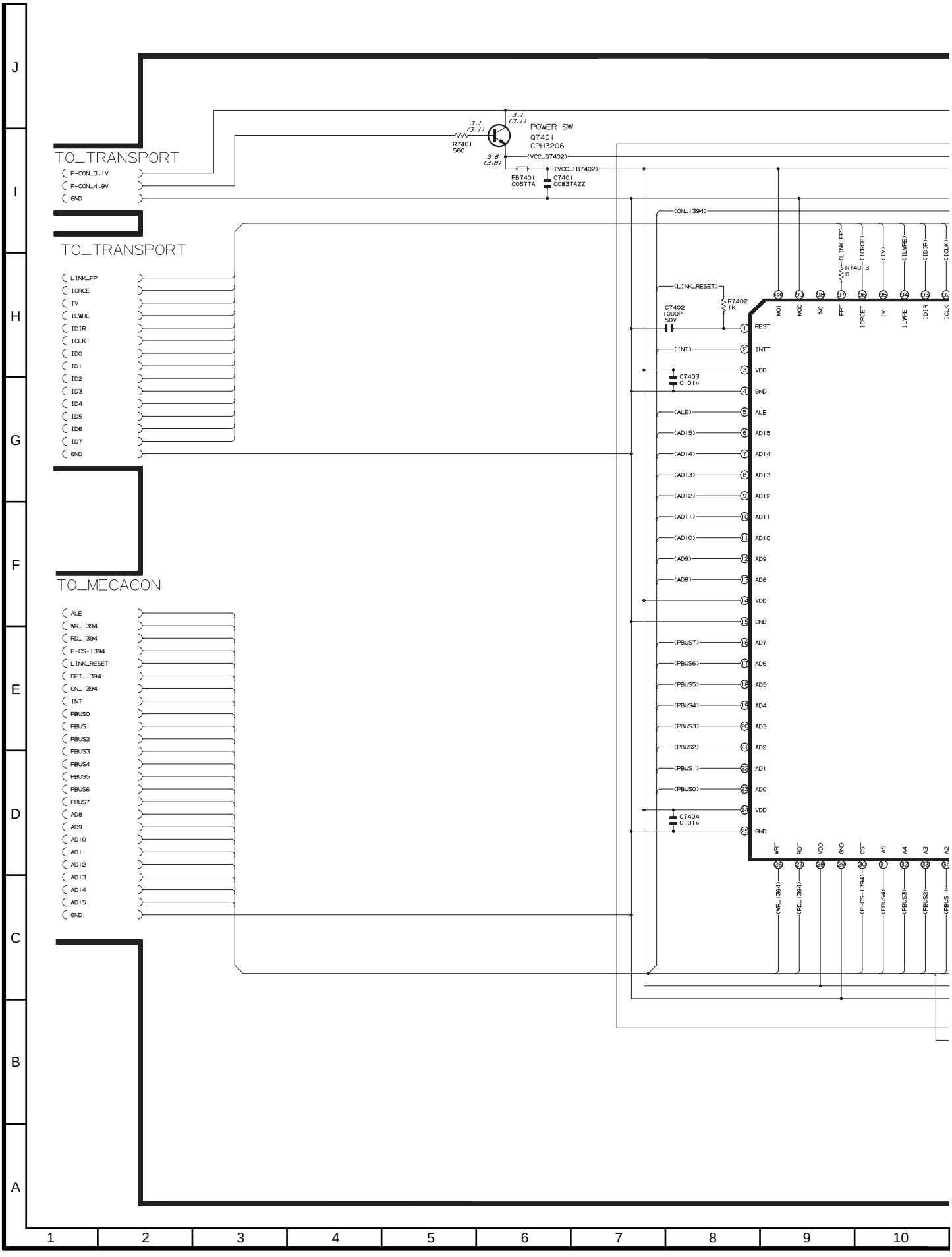


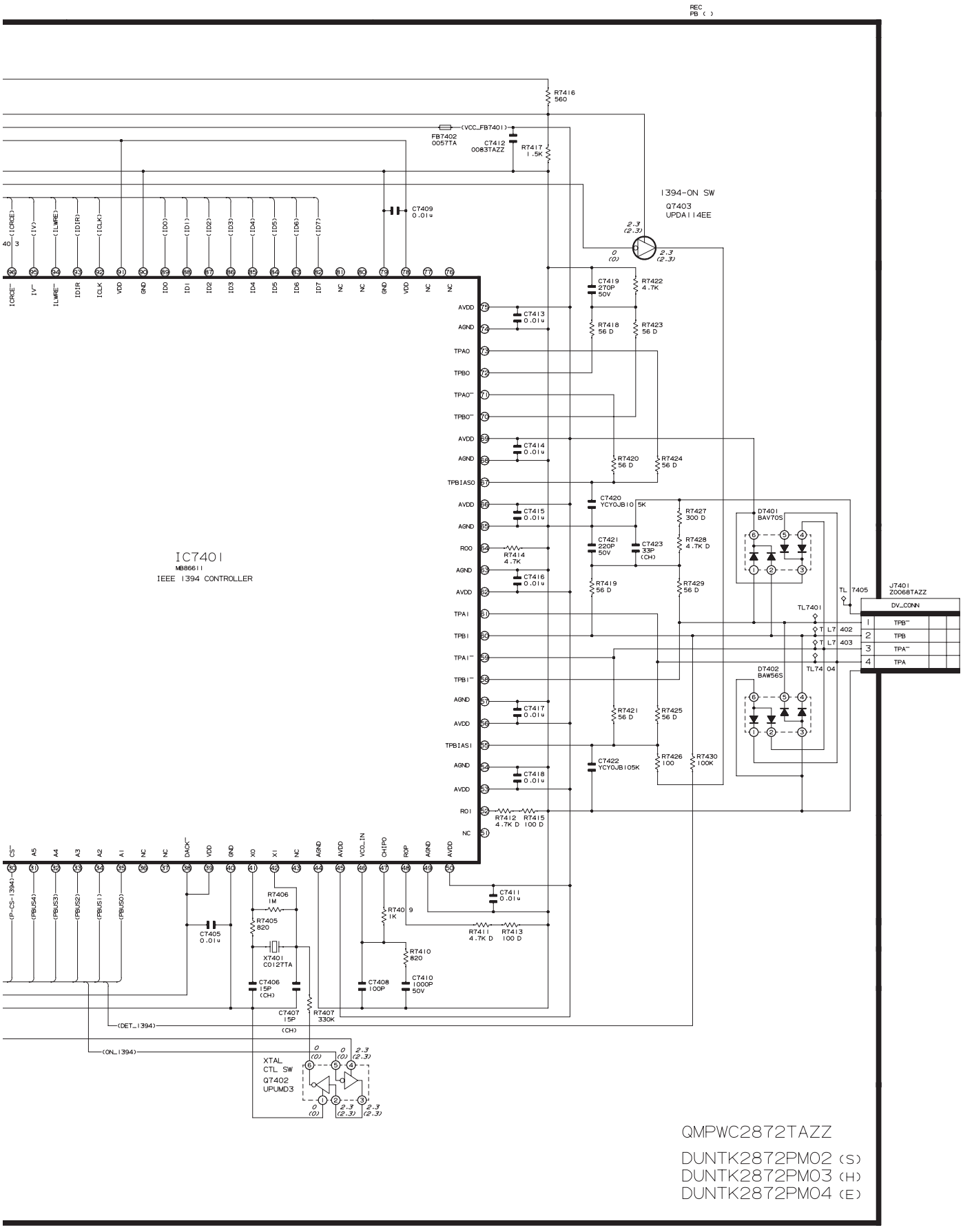
S R Q P O N M L K J

LOCATION MAP: 1 2 3 (4/4)



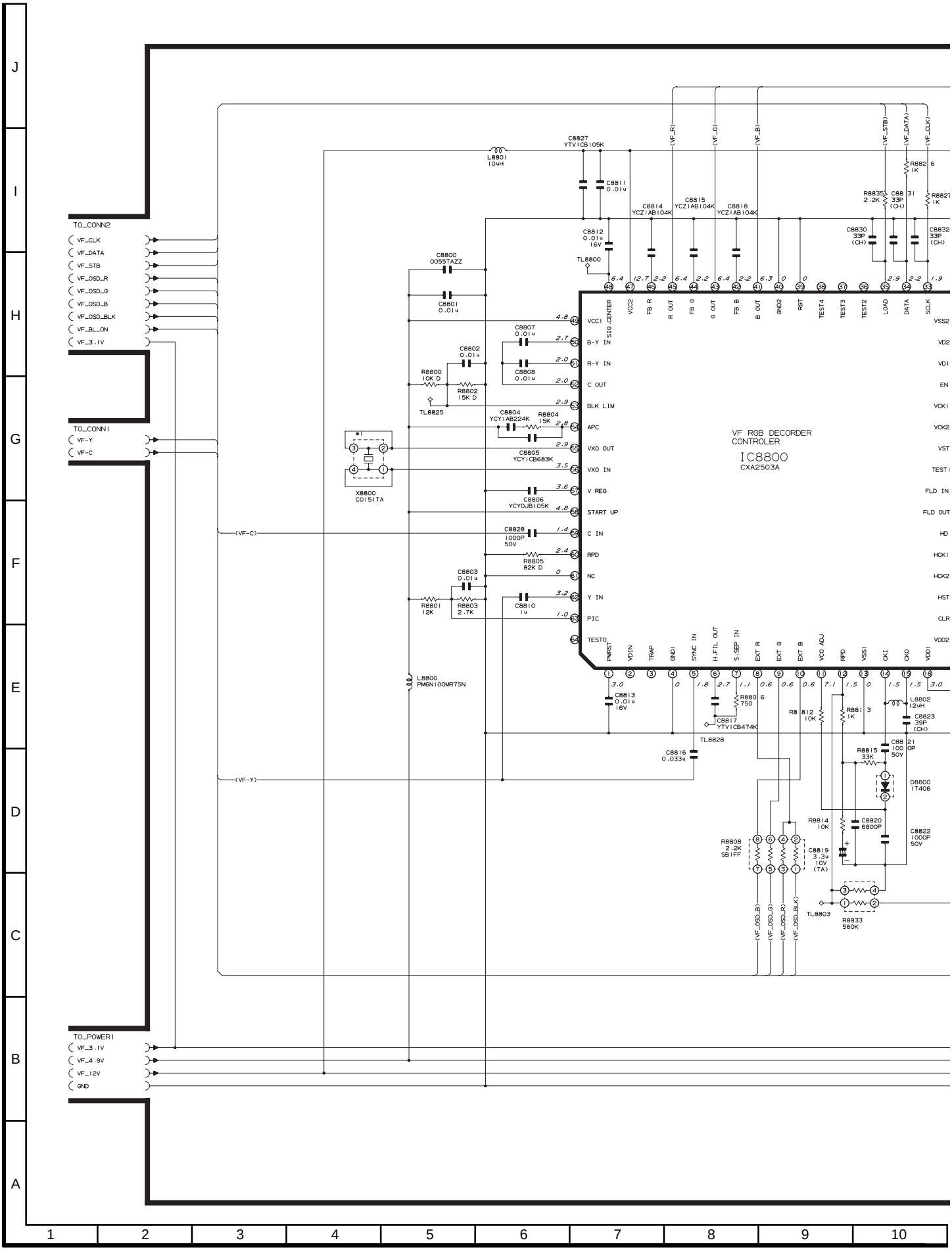
13-21. DIGITAL I/F CIRCUIT SCHEMATIC DIAGRAM

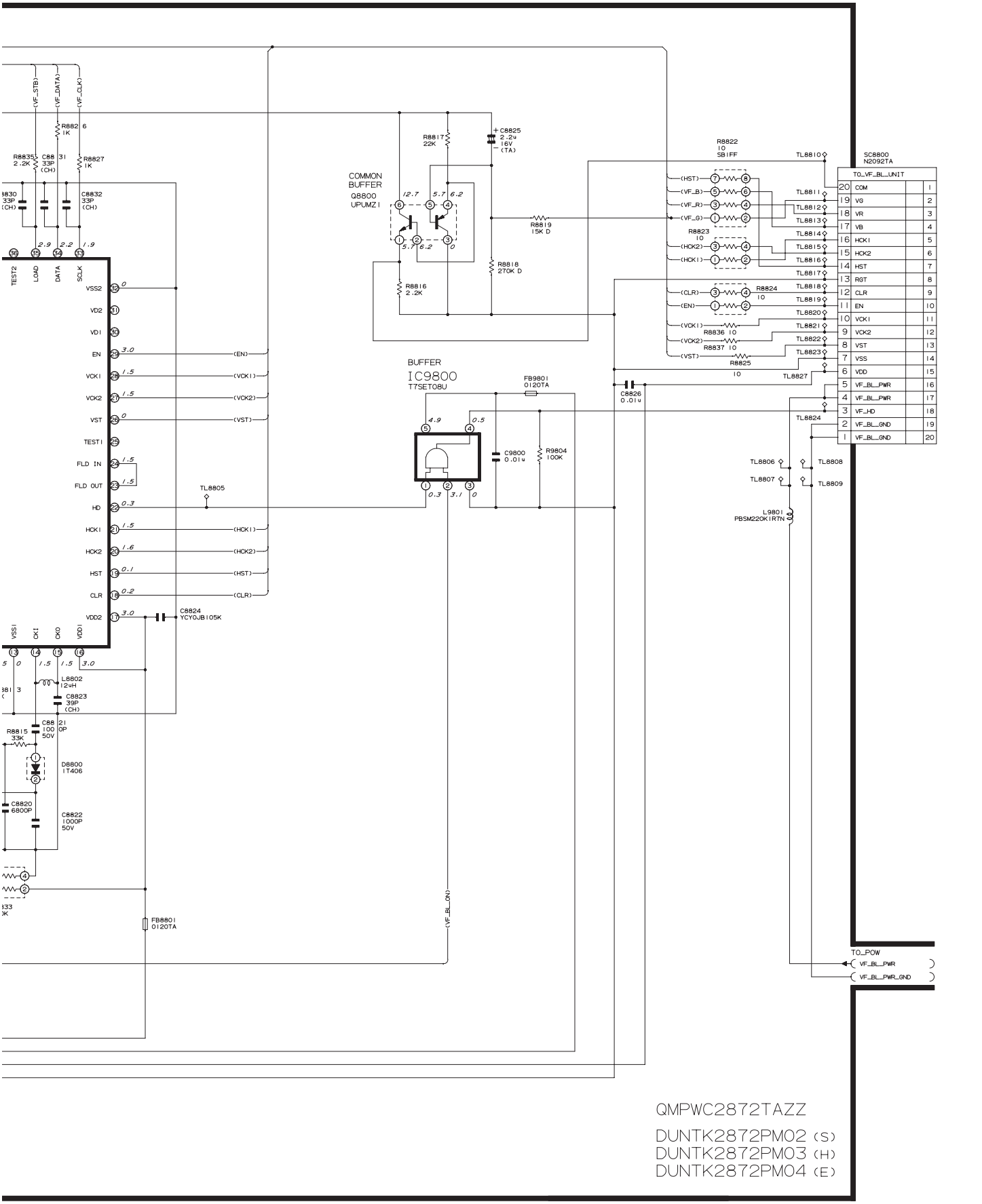




10	11	12	13	14	15	16	17	18	19

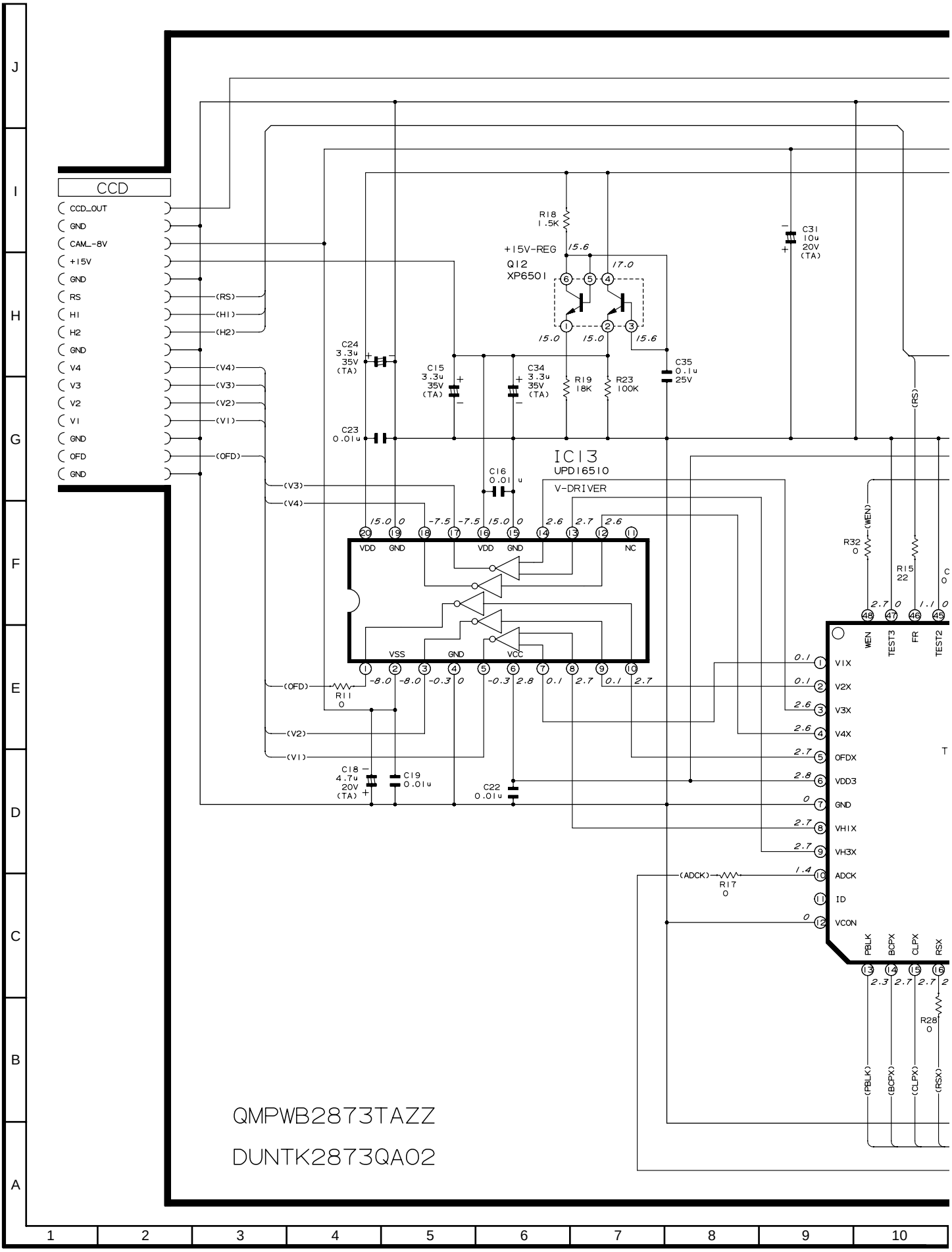
13-22. V/F CIRCUIT SCHEMATIC DIAGRAM

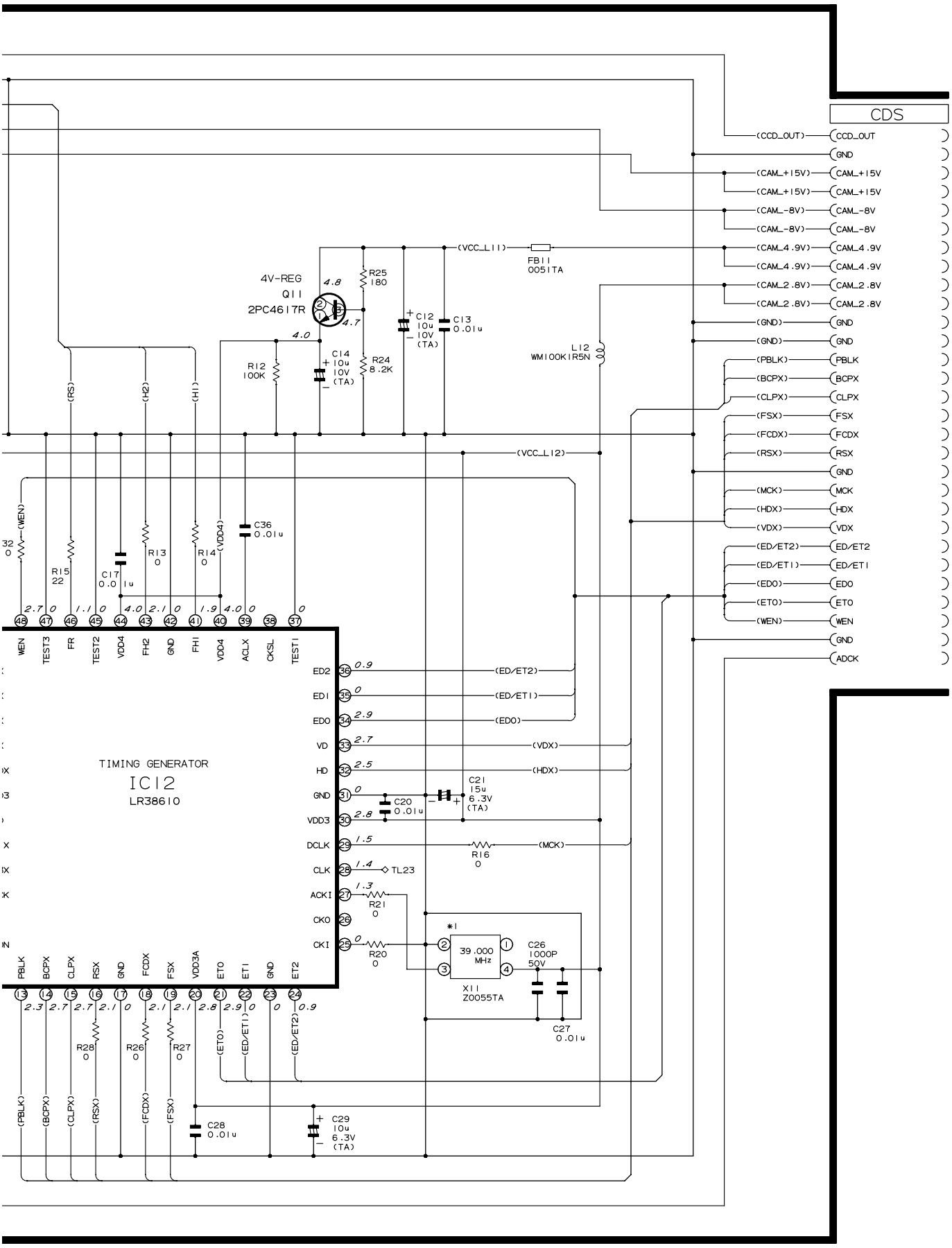




10	11	12	13	14	15	16	17	18	19

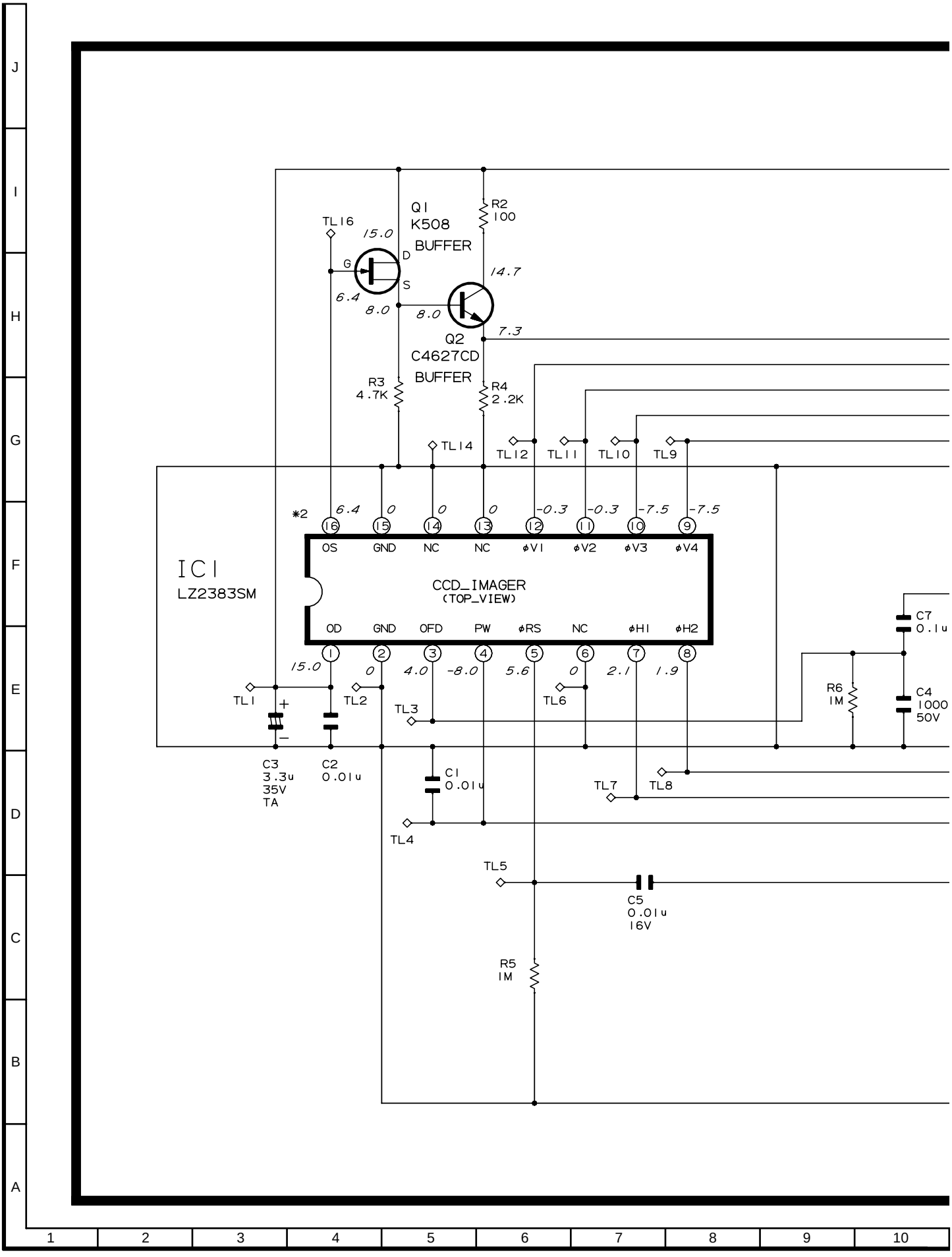
13-23. TG CIRCUIT SCHEMATIC DIAGRAM

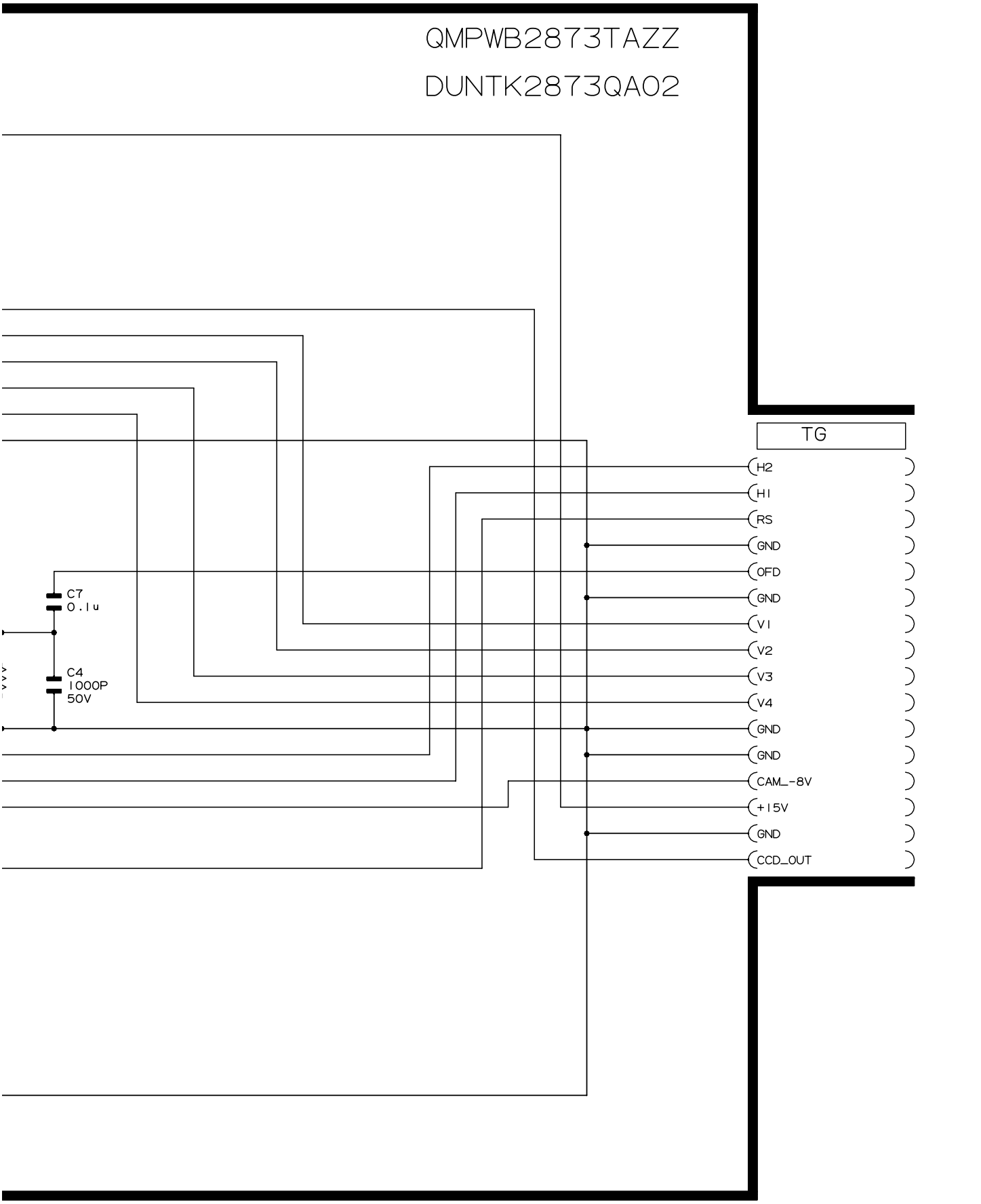




10	11	12	13	14	15	16	17	18	19

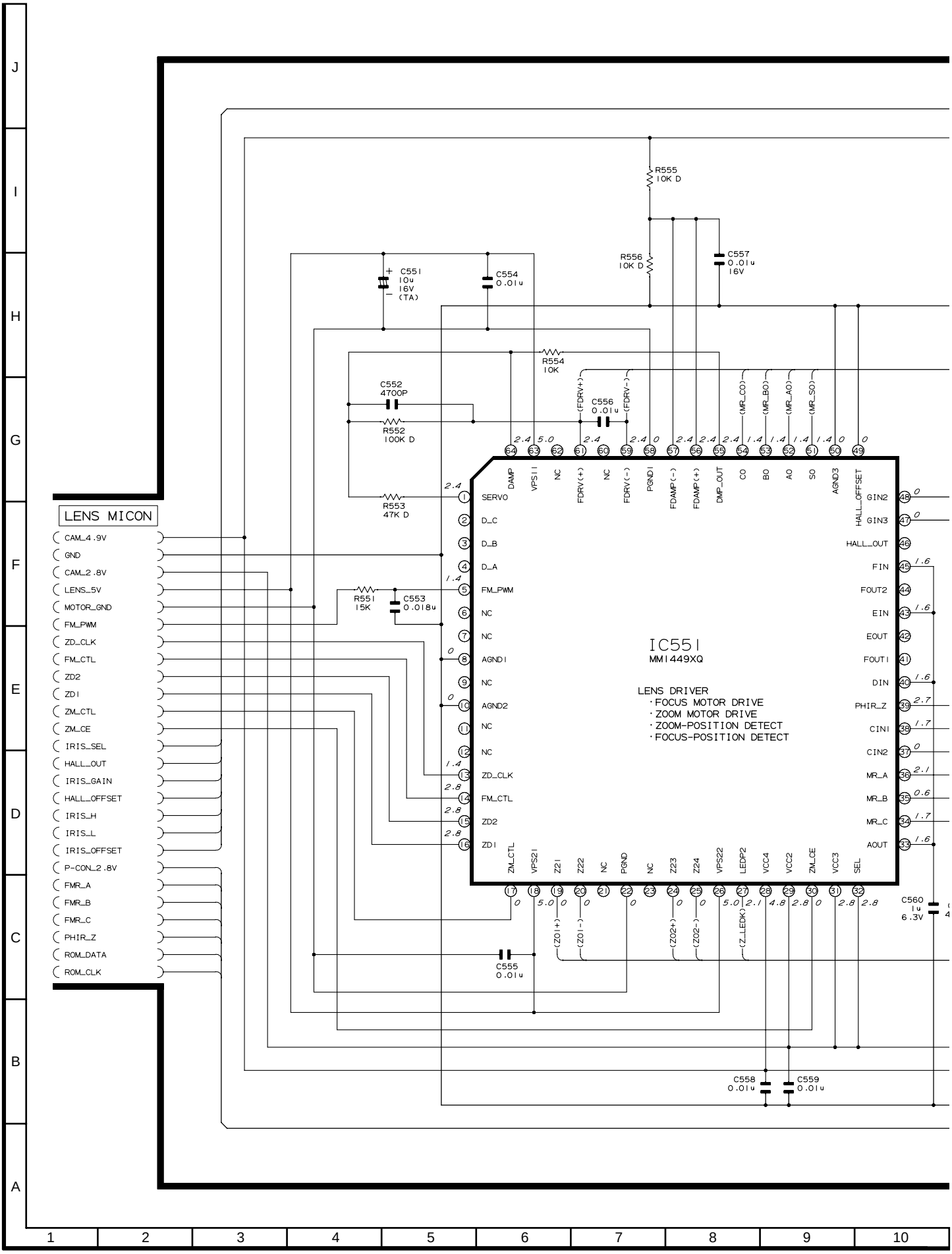
13-24. CCD CIRCUIT SCHEMATIC DIAGRAM

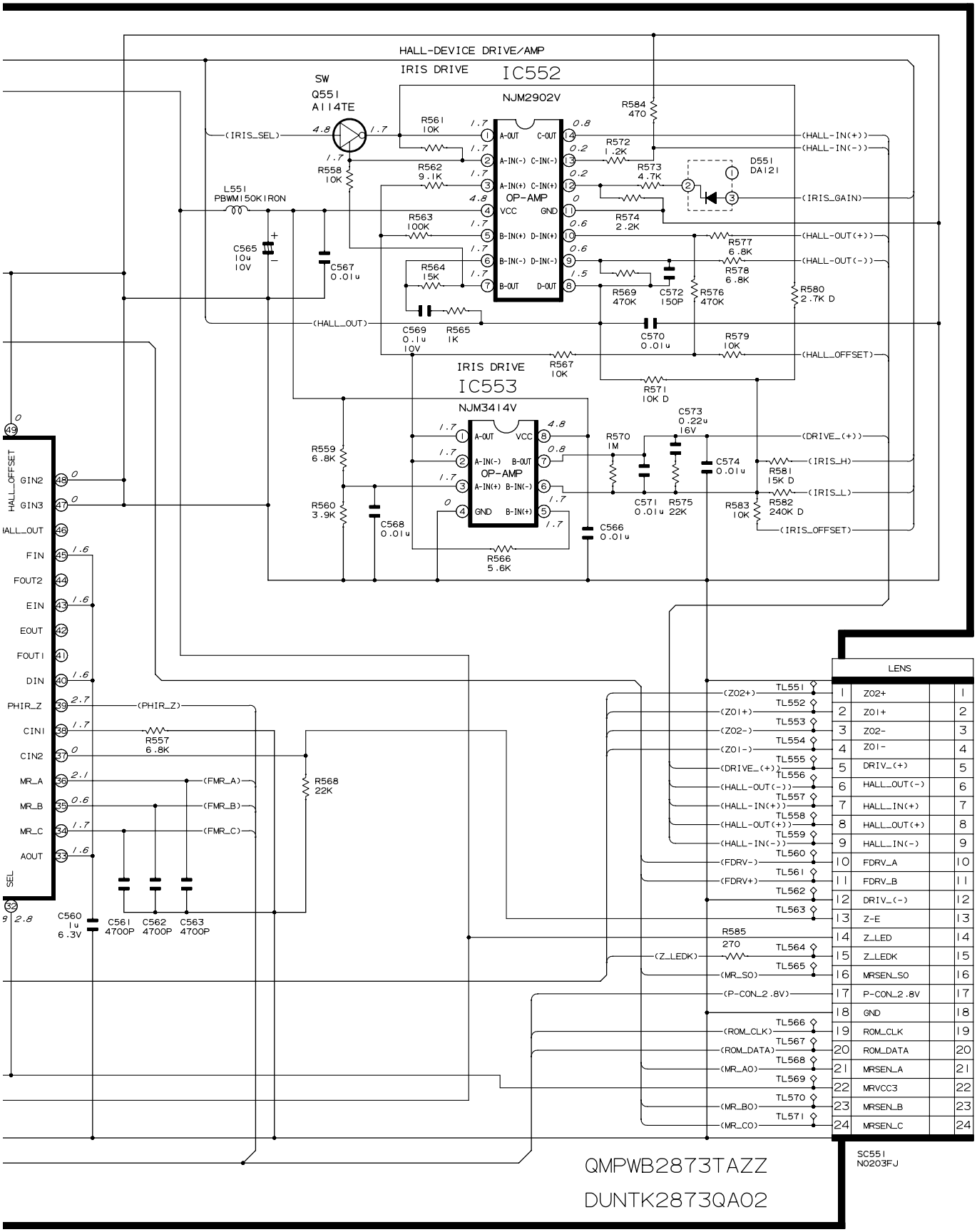




10	11	12	13	14	15	16	17	18	19

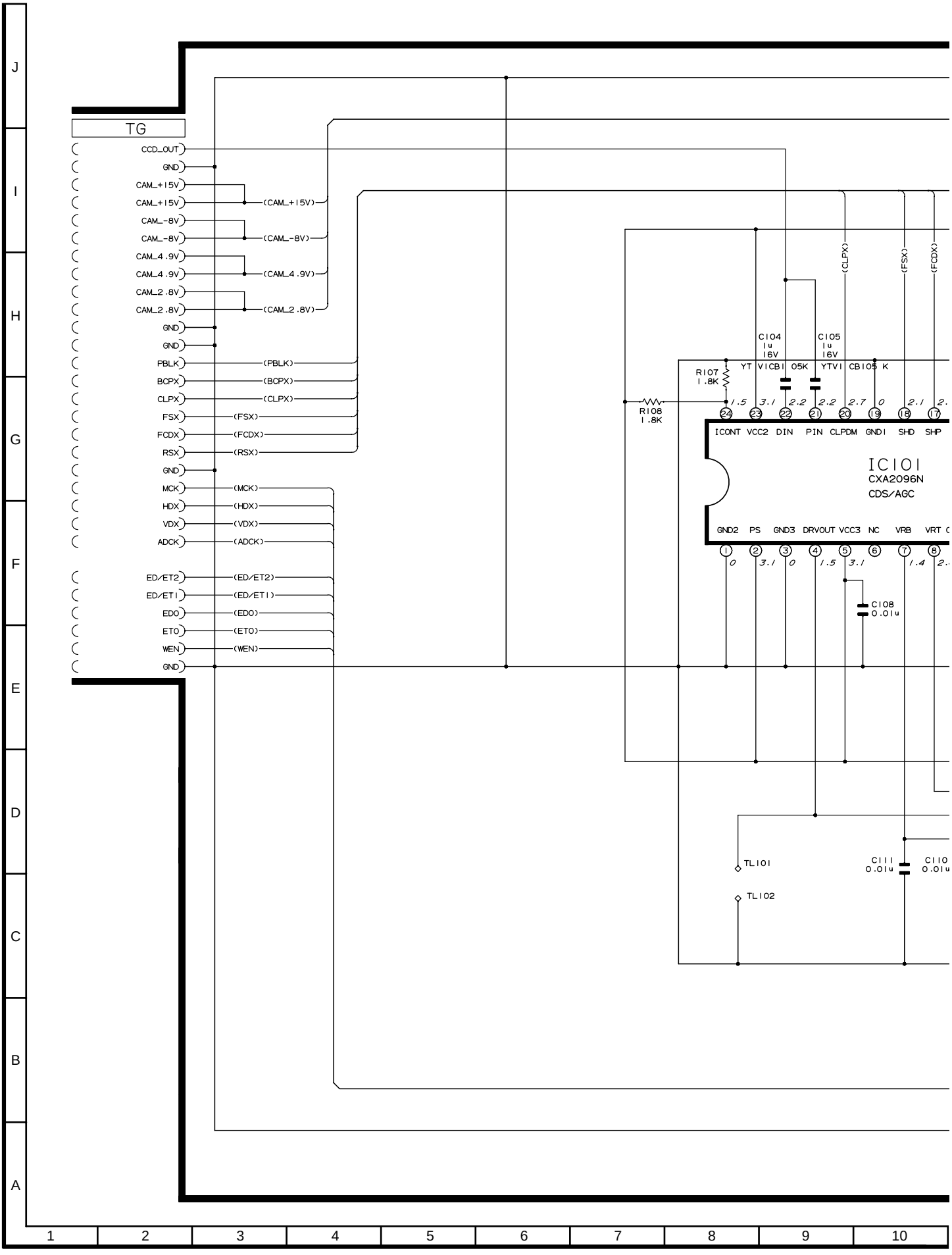
13-25. LENS DRIVE CIRCUIT SCHEMATIC DIAGRAM

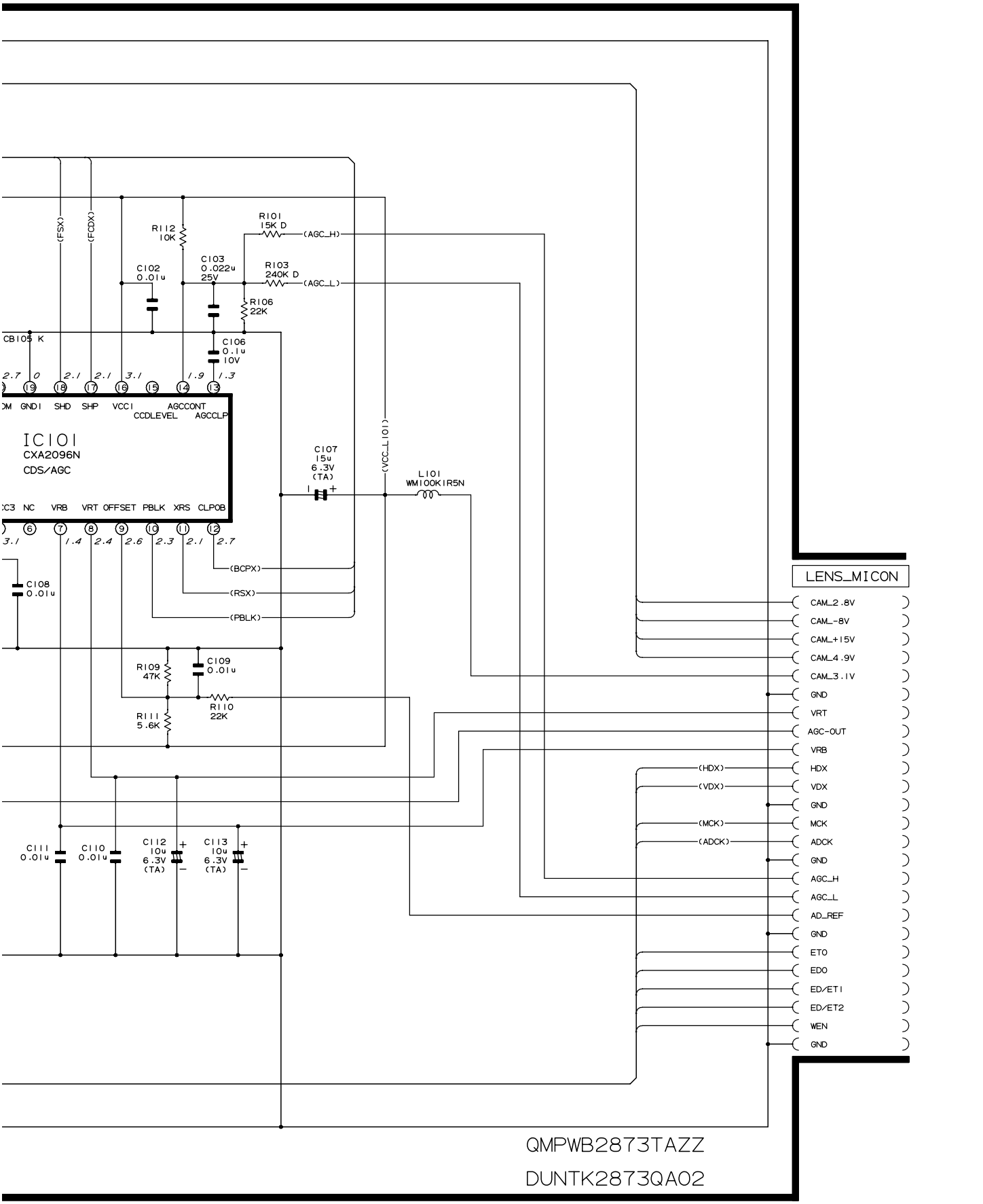




10	11	12	13	14	15	16	17	18	19

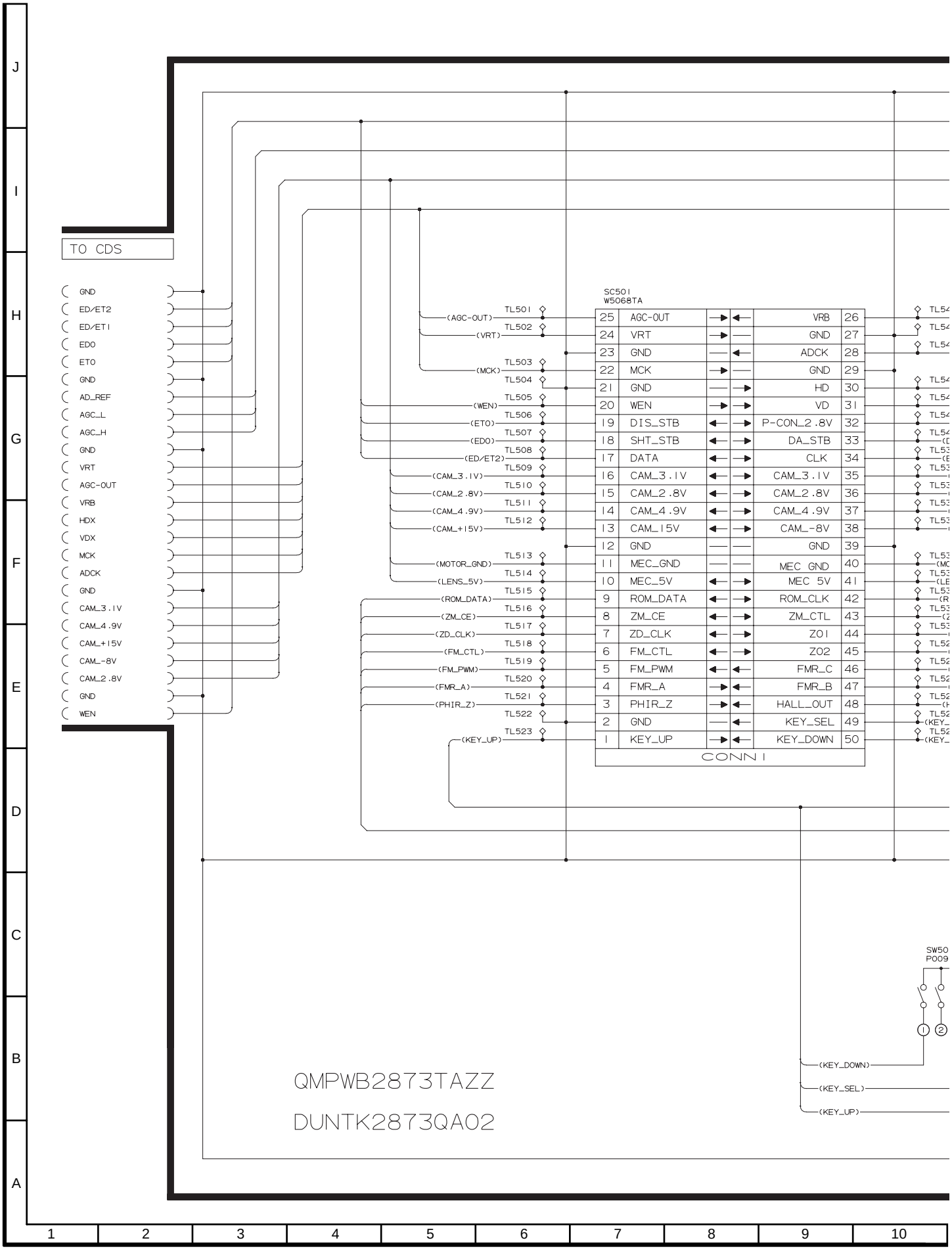
13-26. CDS CIRCUIT SCHEMATIC DIAGRAM

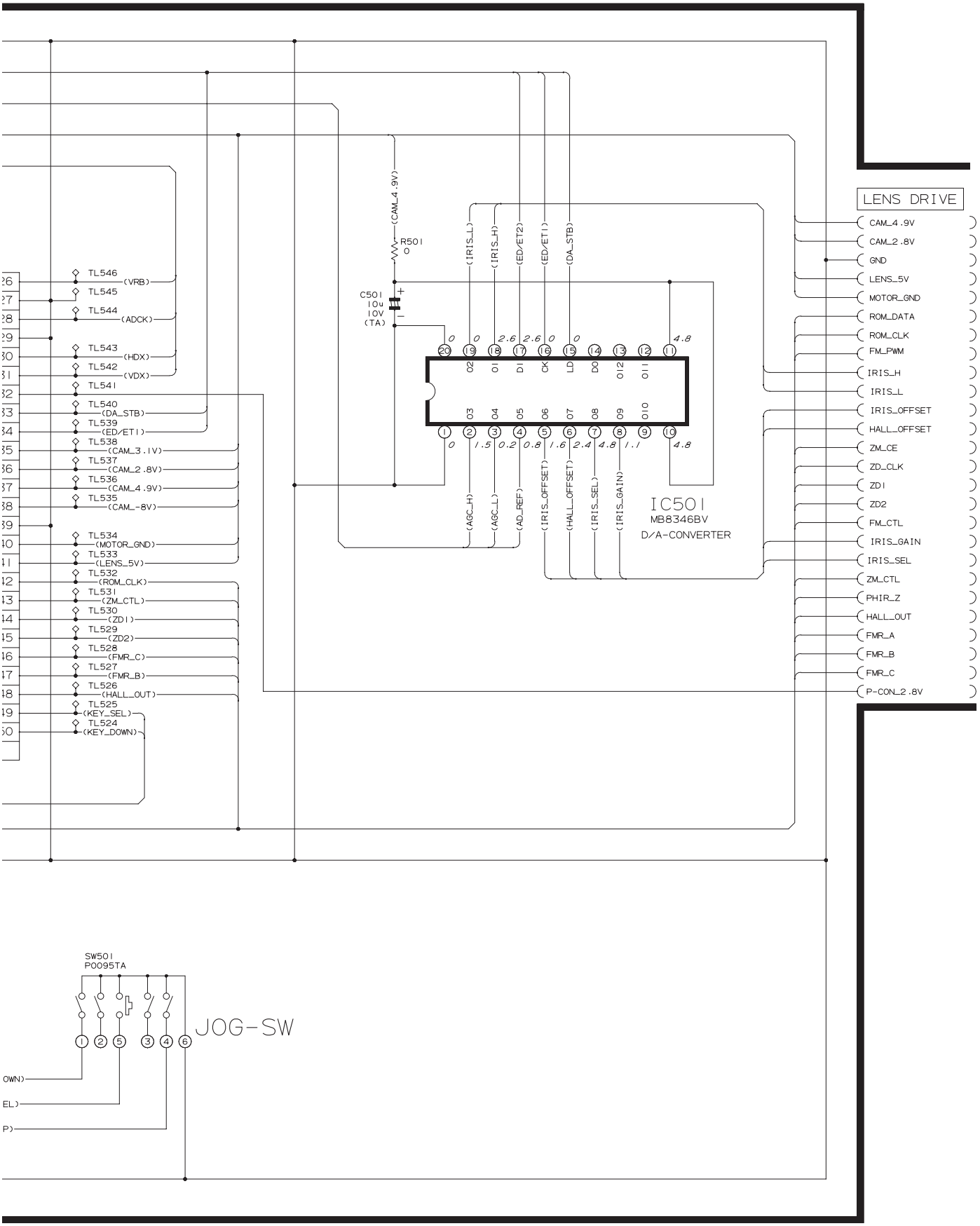




10	11	12	13	14	15	16	17	18	19

13-27. LENS CONNECTION CIRCUIT SCHEMATIC DIAGRAM



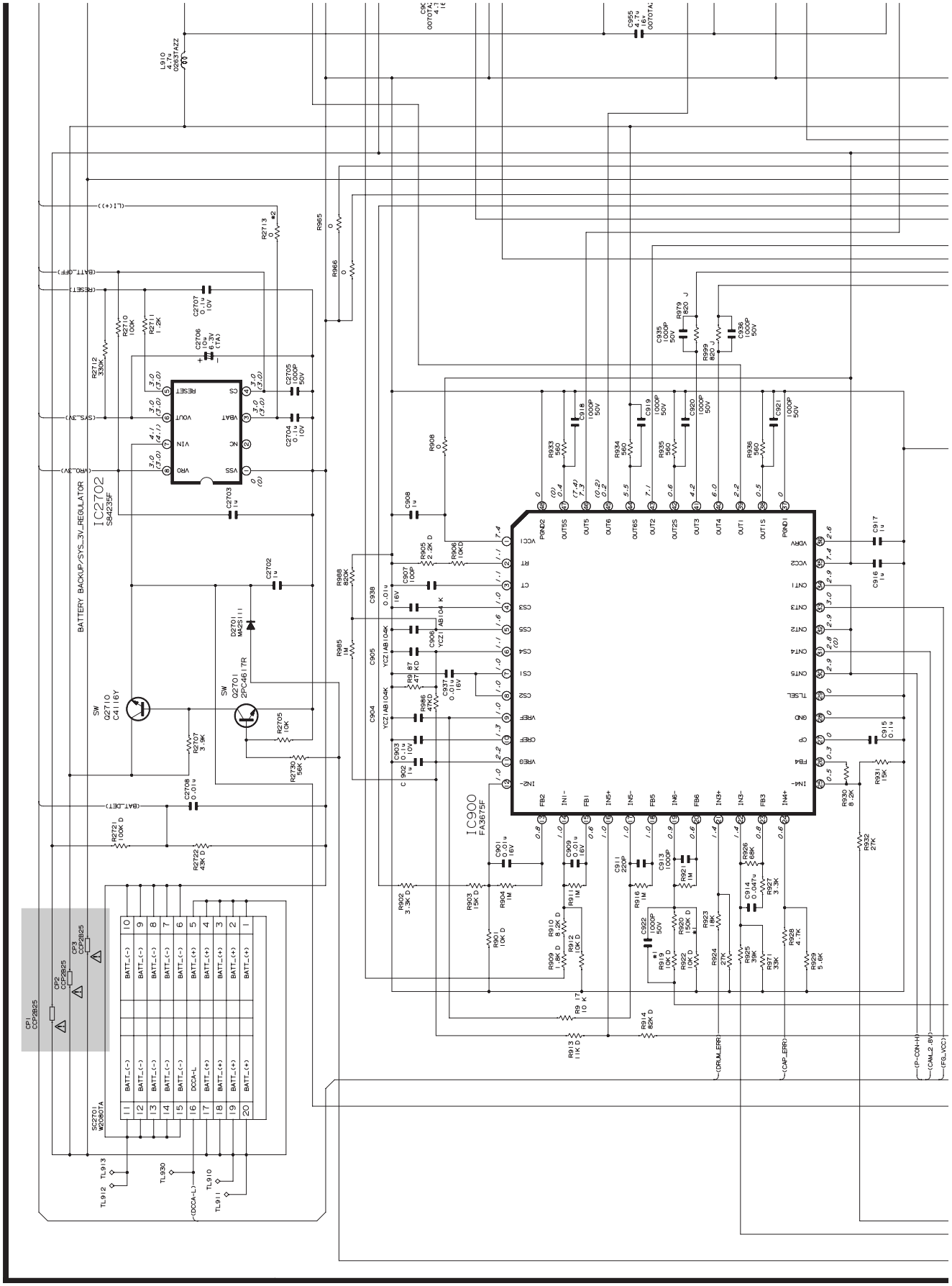


10	11	12	13	14	15	16	17	18	19

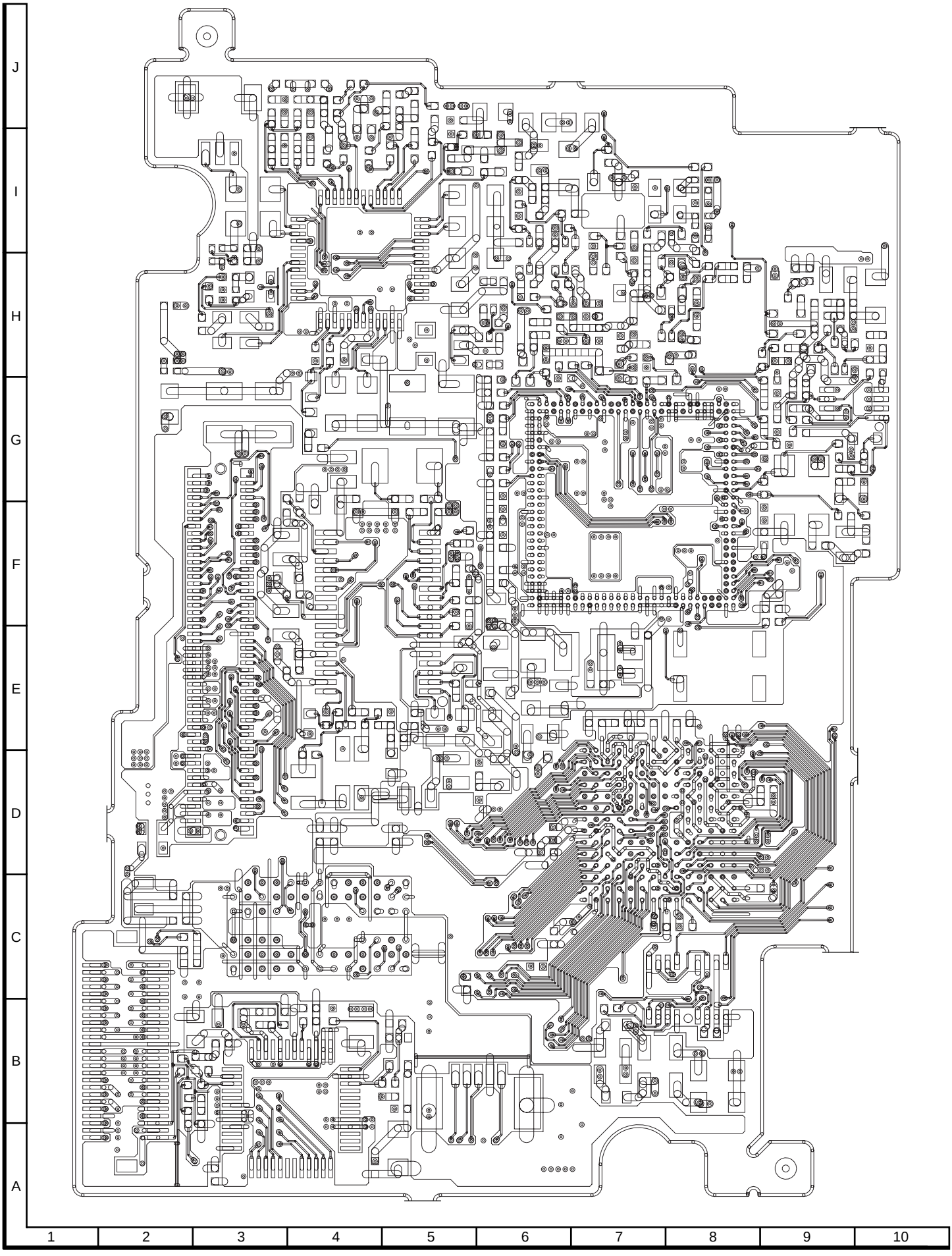
13-28. POWER2 CIRCUIT SCHEMATIC DIAGRAM

LOCATION MAP: 3 / 2 4 (1/4)

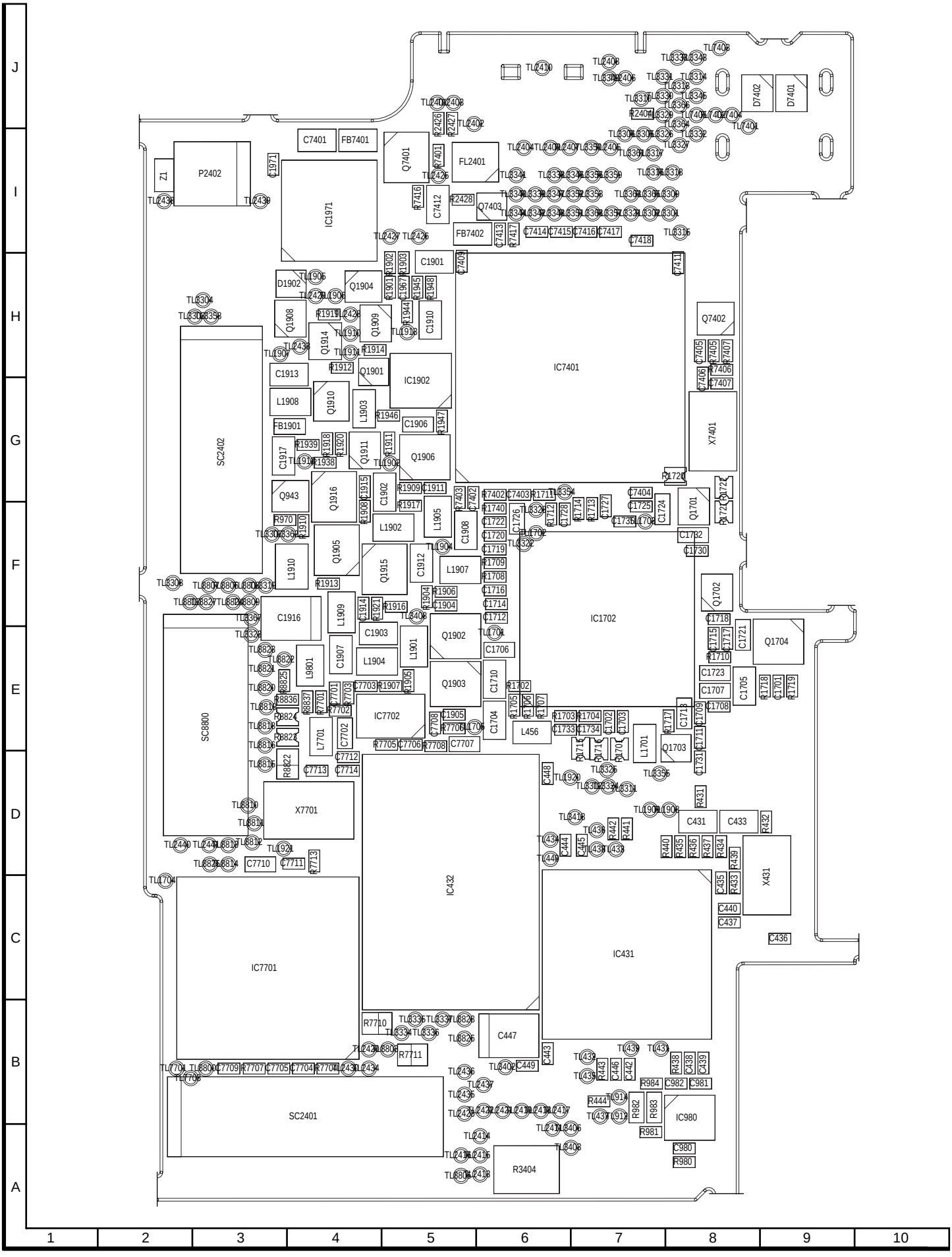
⚠ AND SHADED COMPONENTS=SAFETY RELATED PARTS



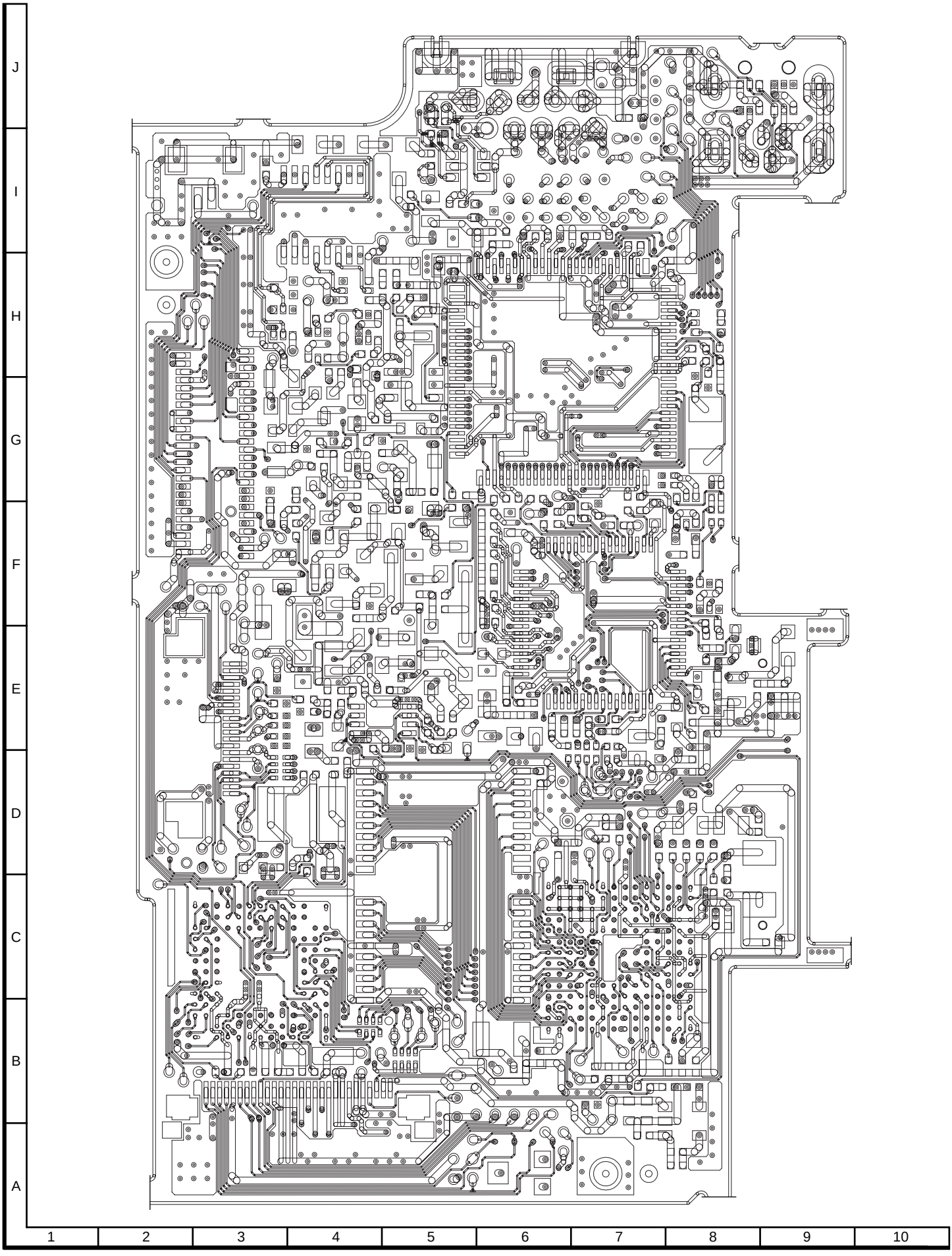
MAIN1 P.W.B. Wiring Side SIDE B



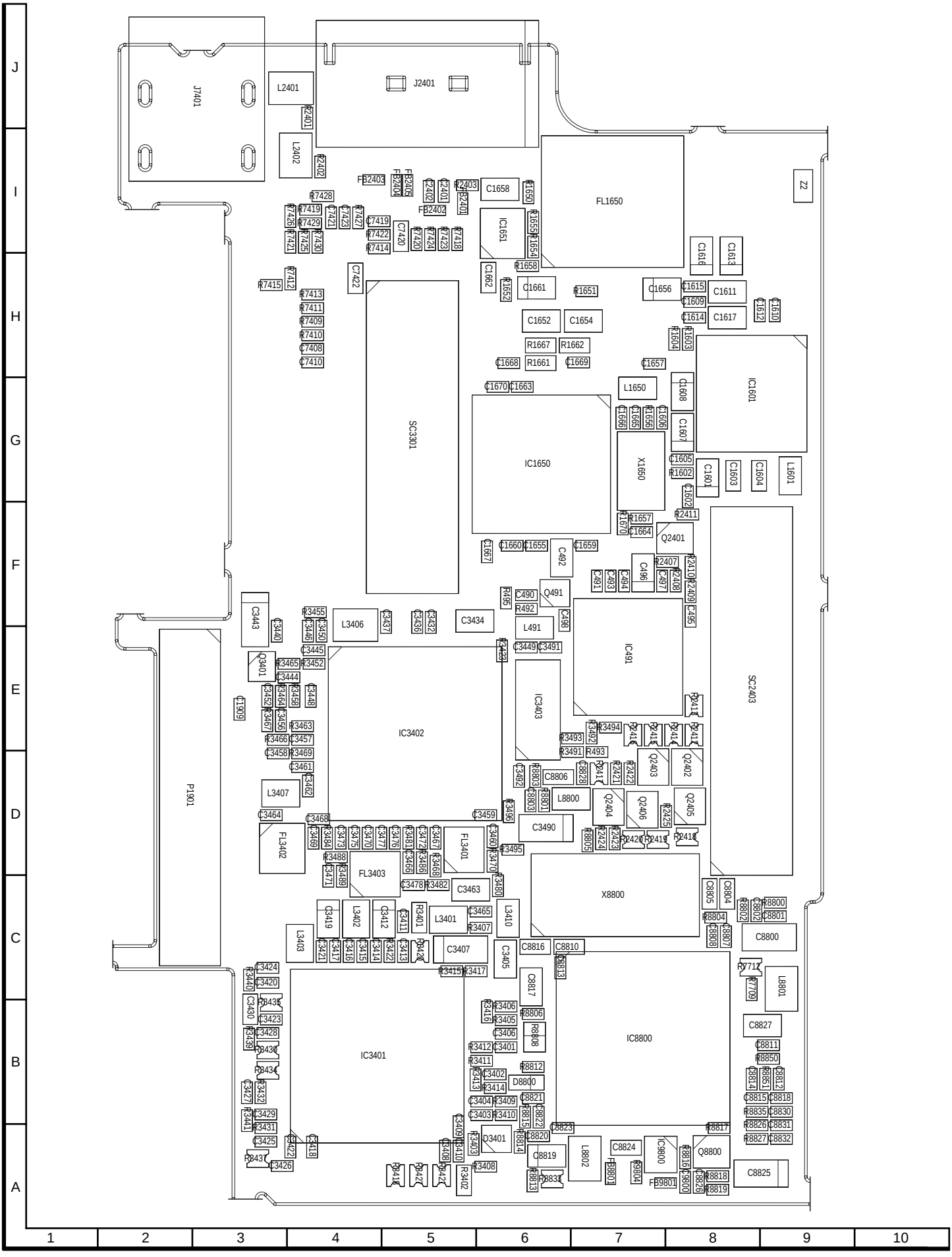
MAIN2 P.W.B. Component Side SIDE A



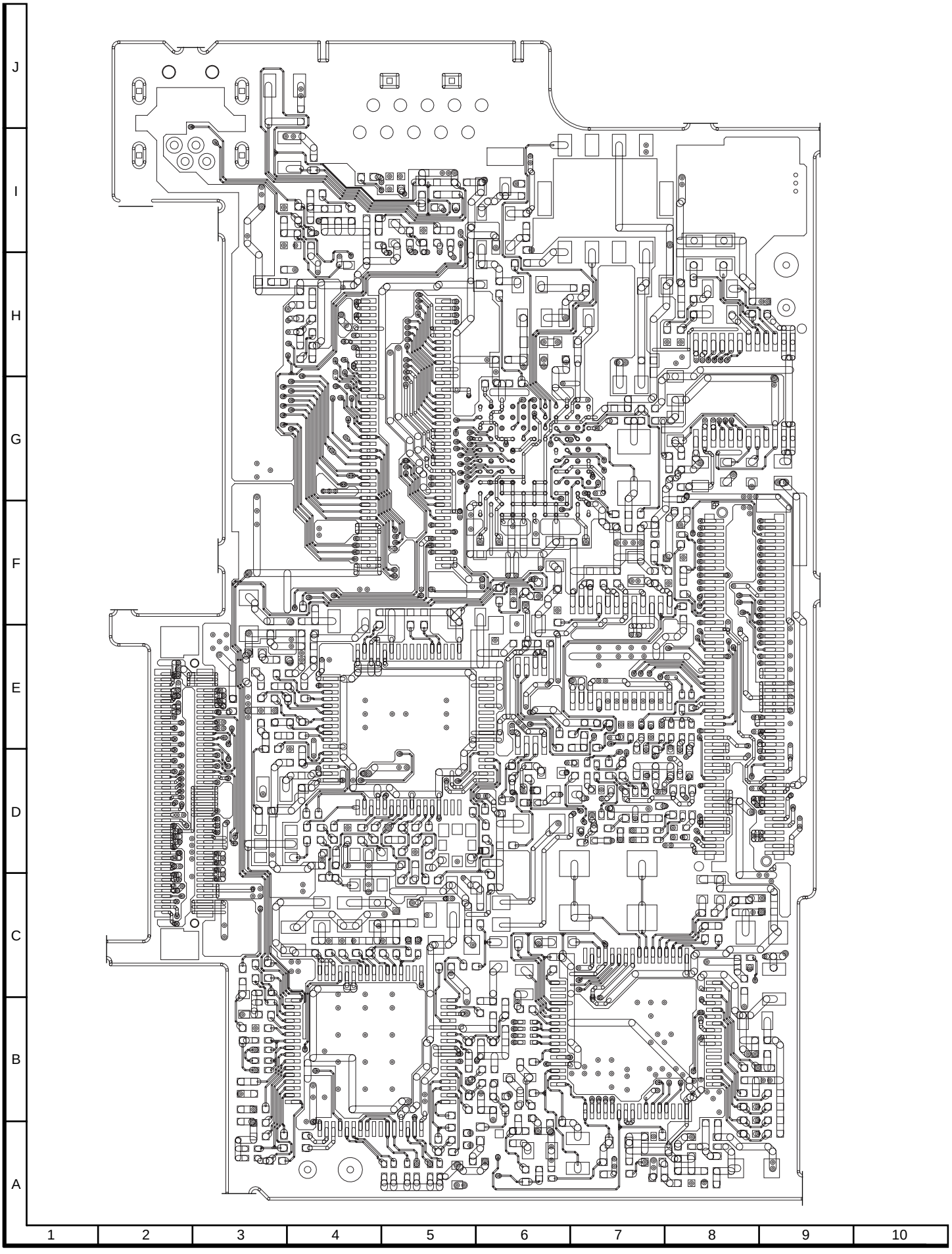
MAIN2 P.W.B. Wiring Side SIDE A



MAIN2 P.W.B. Component Side SIDE B

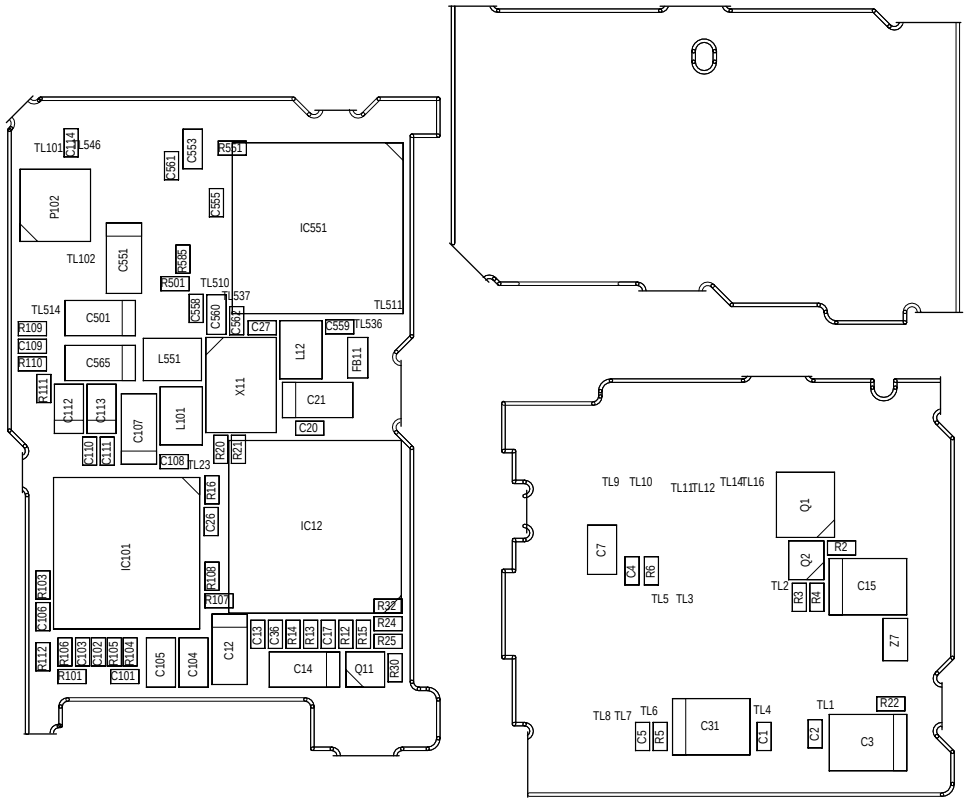


MAIN2 P.W.B. Wiring Side SIDE B

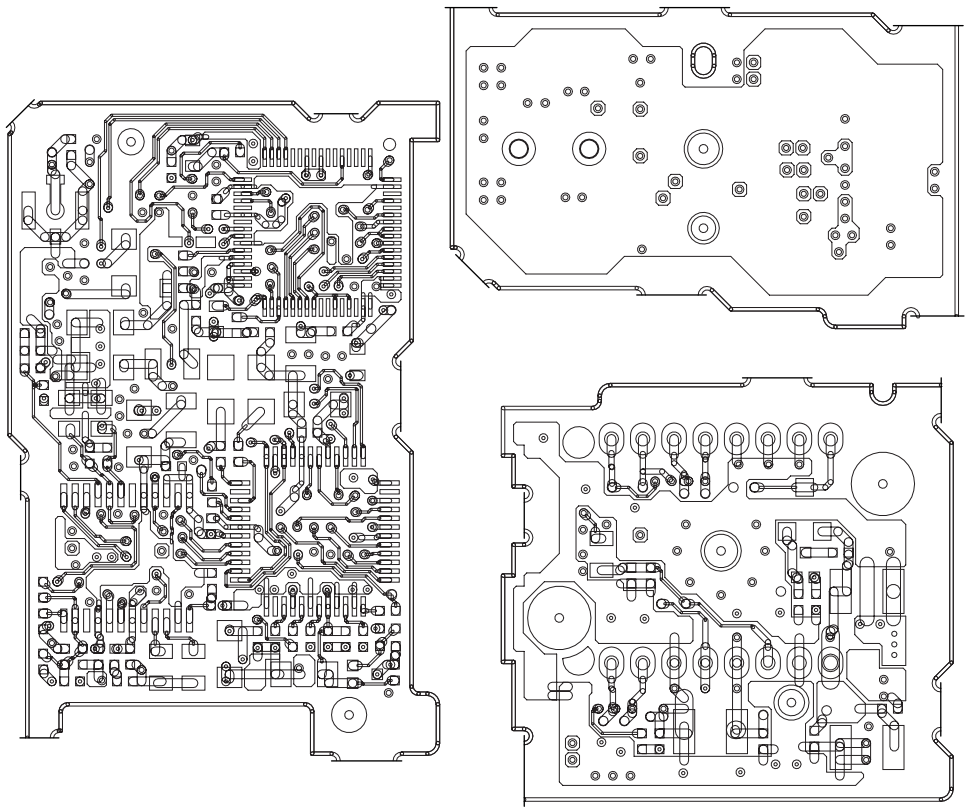


CAMERA HEAD P.W.B.

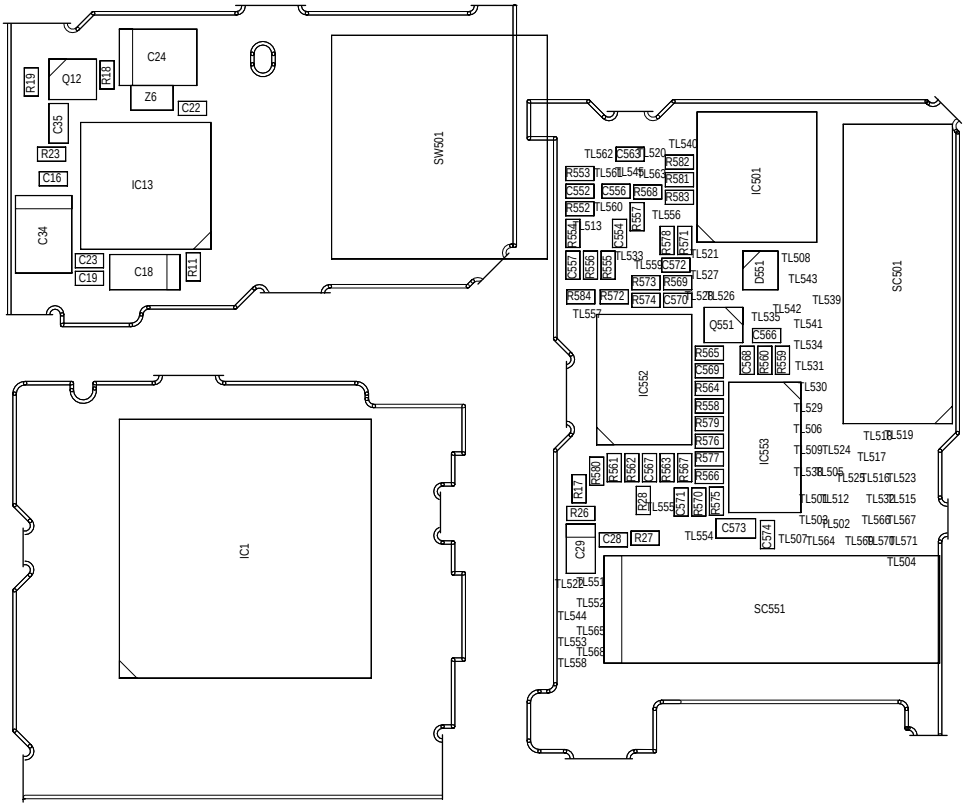
Component Side SIDE A



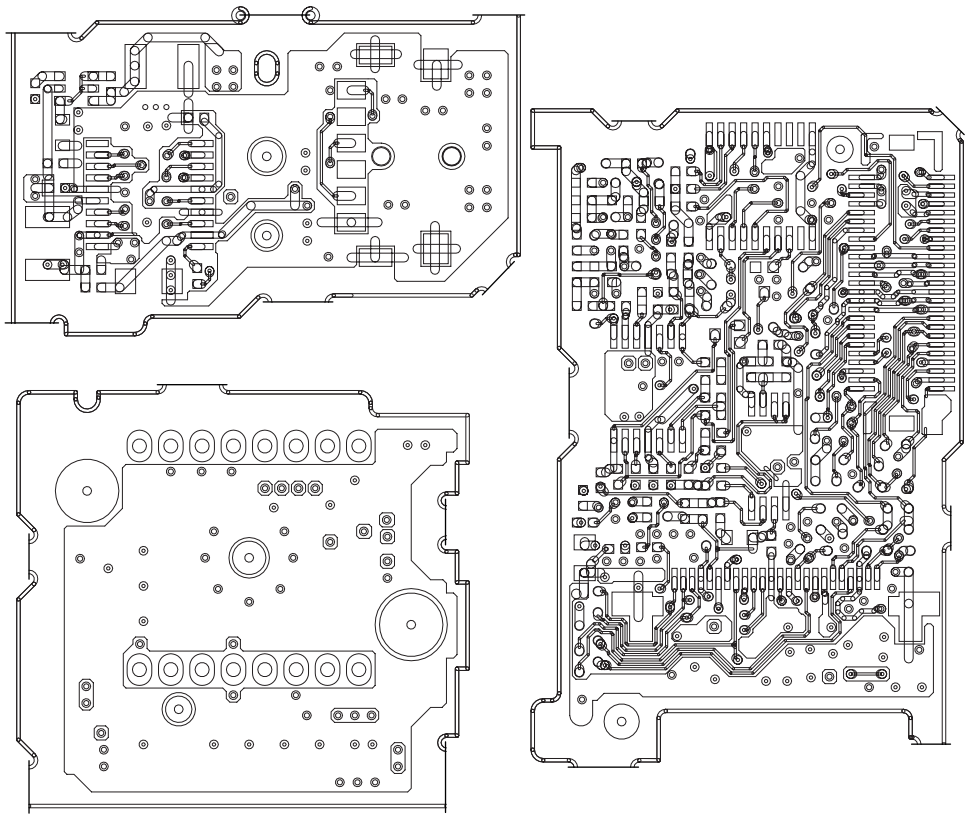
Wiring Side SIDE A



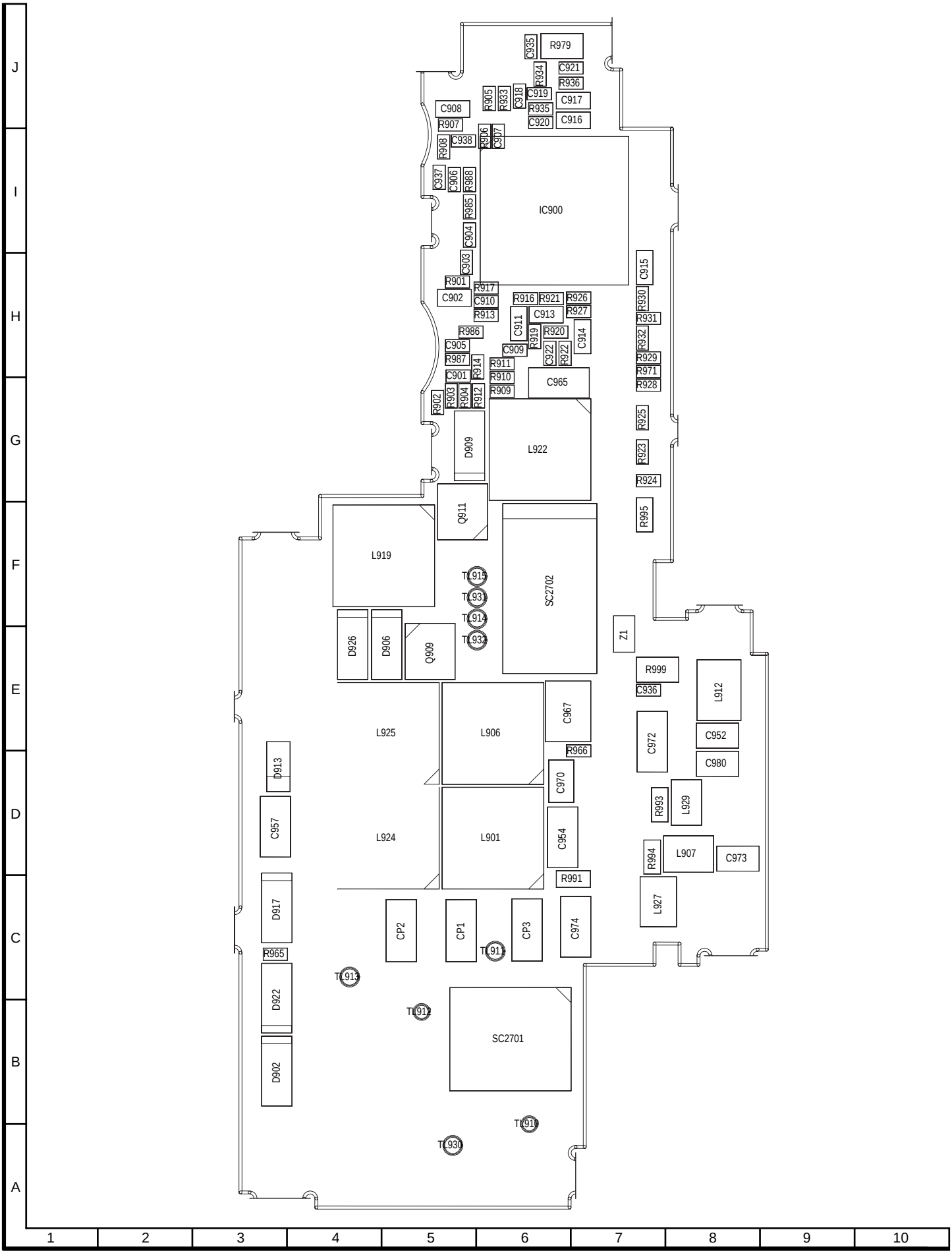
Component Side SIDE B



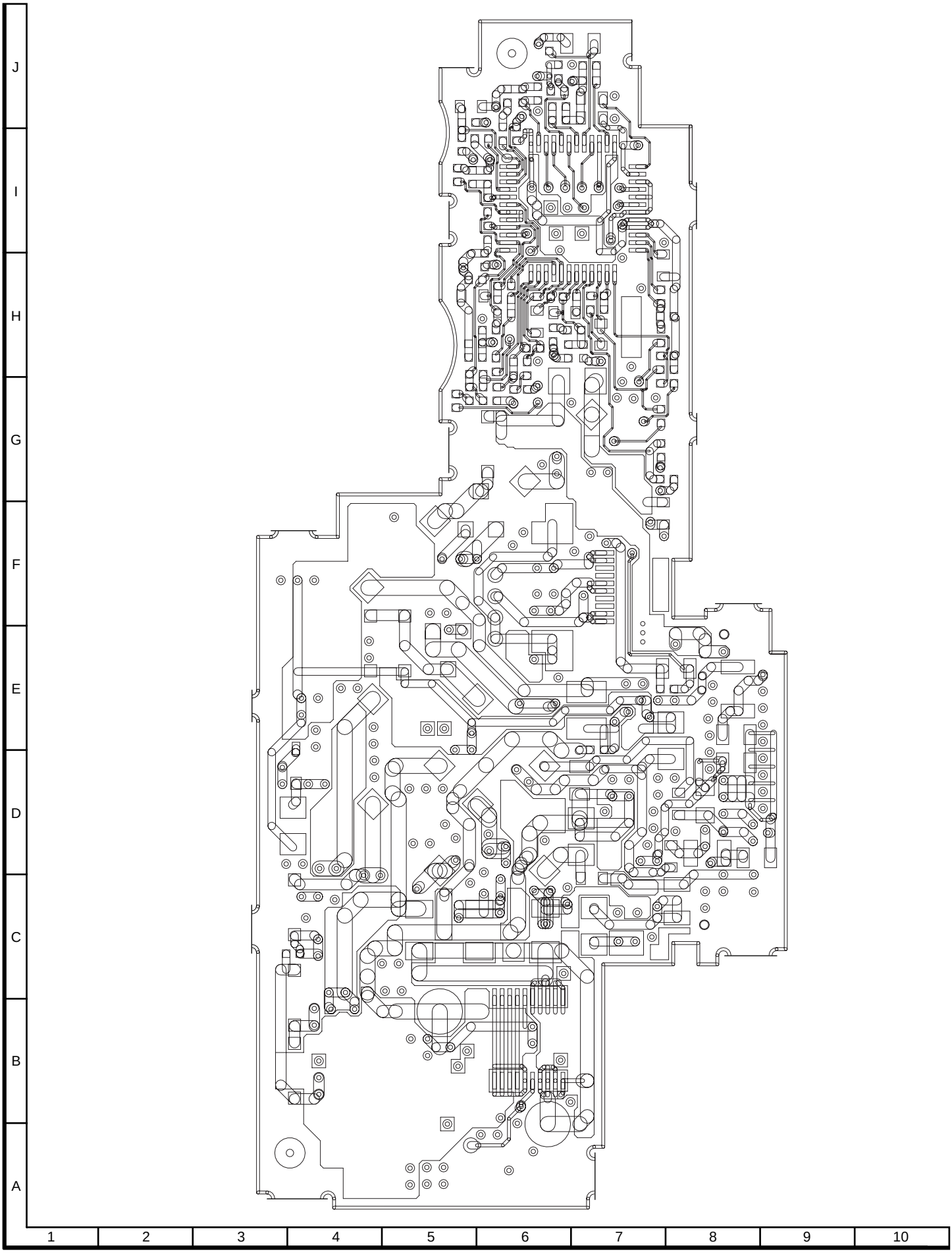
Wiring Side SIDE B



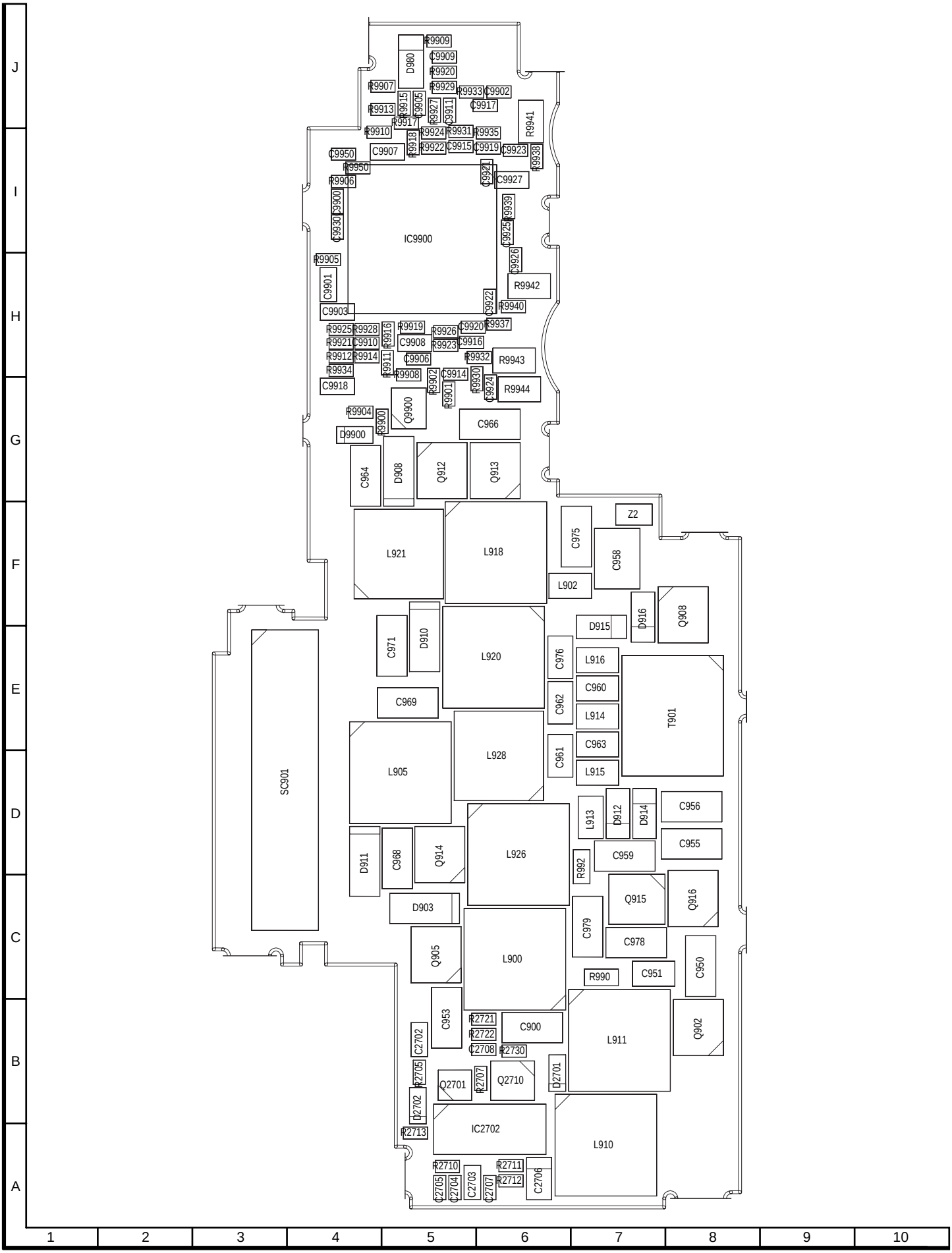
POWER P.W.B. Component Side SIDE A



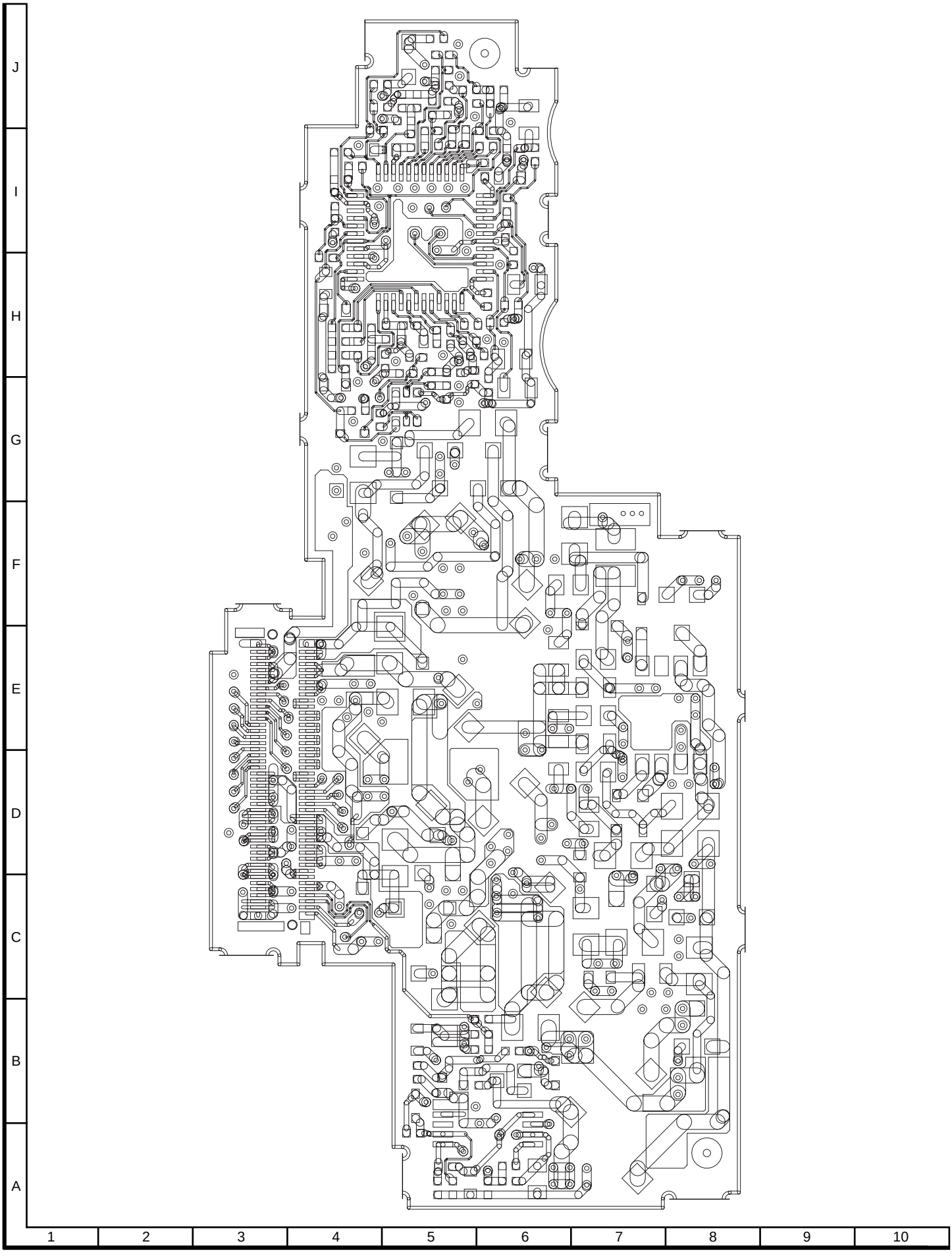
POWER P.W.B. Wiring Side SIDE A



POWER P.W.B. Component Side SIDE B

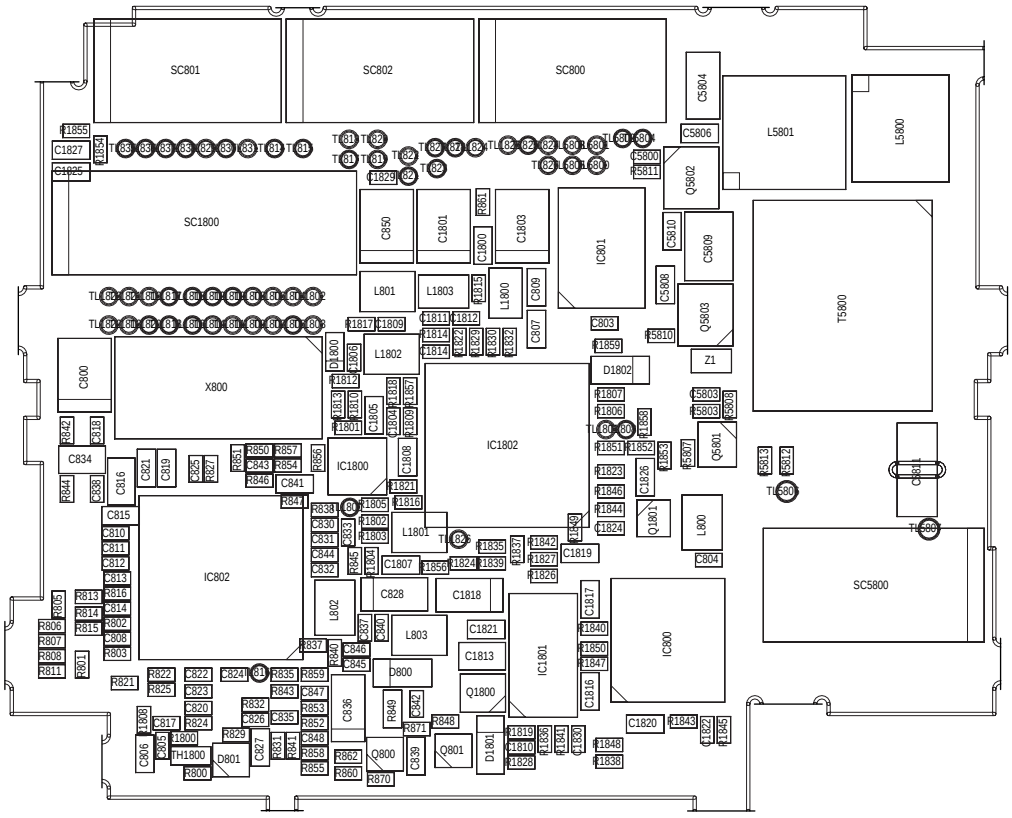


POWER P.W.B. Wiring Side SIDE B



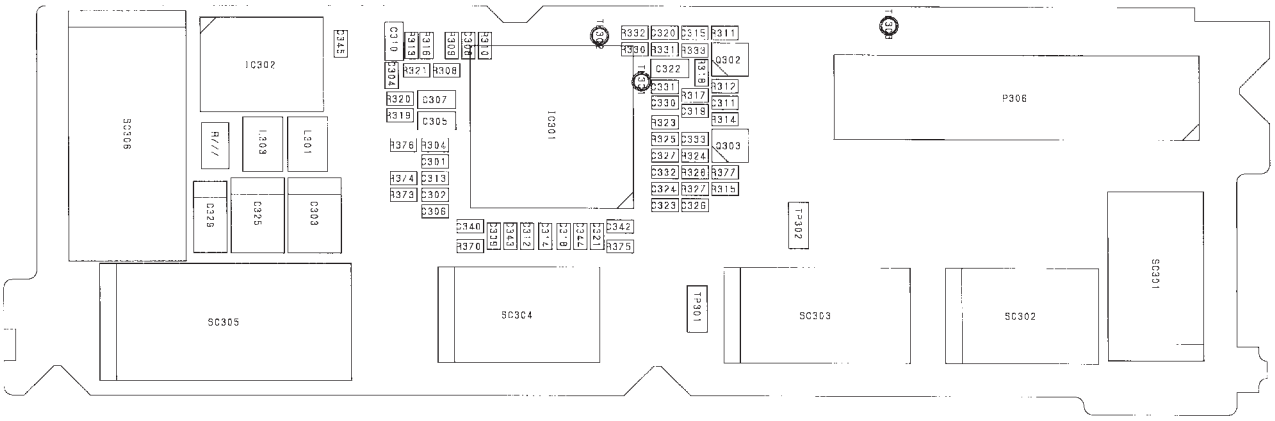
LCD P.W.B.

Component Side SIDE A

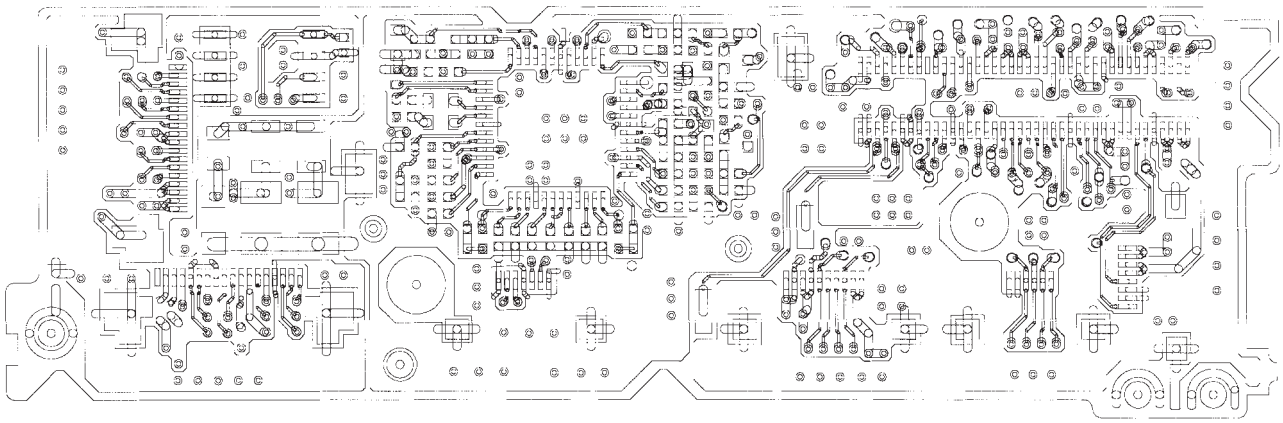

SC801
SC802
SC800
SC1800
SC5800
X800
IC802
IC1800
IC1802
IC1801
IC800
L801
L1803
L1800
L1802
L1801
L802
L803
T5800
L5801
L5800
Q5803
Q5802
Q5801
Q1801
Q1800
Q801
Q800
D1802
D1801
D800
Z1
C800
C834
C816
C815
C821
C819
C825
C827
C838
C842
C844
C832
C828
C1818
C1821
C1813
C1819
C1807
C1826
C1827
C1829
C1825
C850
C1801
C1803
C1800
C809
C807
C803
C5804
C5806
C5800
C5811
C5810
C5809
C5808
C5803
C5807
C5813
C5812
C804
C1817
C1816
C1820
C1843
C1822
C1845
C1848
C1838
C1850
C1847
C1840
C1824
C1839
C1842
C1835
C1837
C1827
C1826
C1856
C1808
C1804
C1805
C1809
C1817
C1814
C1811
C1812
C1829
C1830
C1832
C1815
C1859
C1807
C1806
C1858
C1851
C1852
C1853
C1823
C1846
C1844
C1824
C1849
C1826
C1835
C1837
C1842
C1827
C1819
C1807
C1856
C1824
C1839
C1821
C1813
C1818
C828
C1801
C1803
C1802
C1805
C1804
C1809
C1817
C1814
C1811
C1812
C1829
C1830
C1832
C1815
C1800
C809
C807
C803
C1810
C1859
C1807
C1806
C1858
C1851
C1852
C1853
C1823
C1826
C1846
C1844
C1824
C1849
Q1801
C1816
C1817
C1840
C1850
C1847
C1848
C1838
C1822
C1845
C1820
C1843
C1808
C1800
C1801
C1802
C1803
C1804
C1805
C1806
C1807
C1808
C1809
C1810
C1811
C1812
C1813
C1814
C1815
C1816
C1817
C1818
C1819
C1820
C1821
C1822
C1823
C1824
C1825
C1826
C1827
C1829
C1830
C1832
C1835
C1836
C1837
C1838
C1839
C1840
C1841
C1842
C1843

HEAD AMP P.W.B.

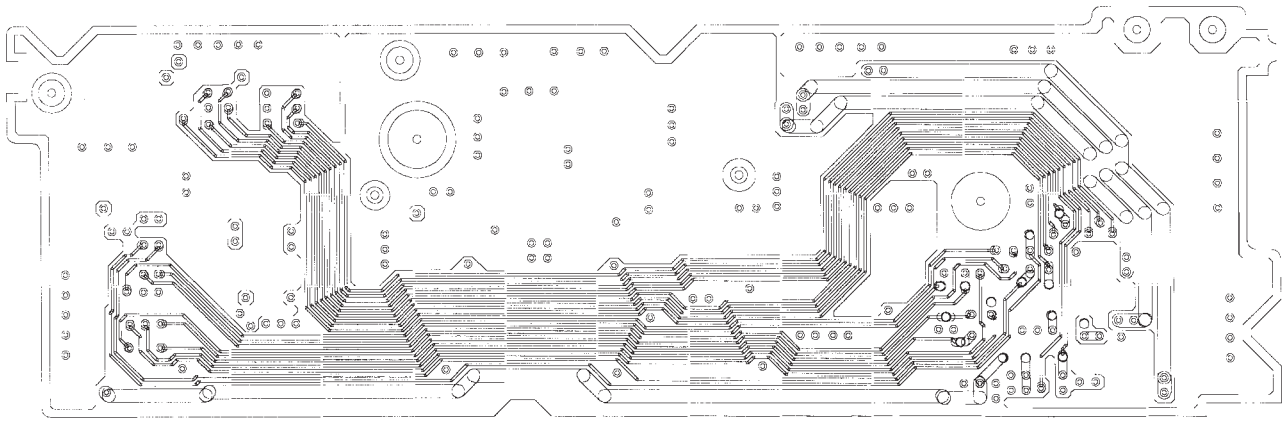
Component Side SIDE A



Wiring Side SIDE A



Wiring Side SIDE B



- M E M O -

16. REPLACEMENT PARTS LIST/ EXPLODED VIEWS

ELECTRICAL PARTS LIST

Parts marked with "⚠" are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

" HOW TO ORDER REPLACEMENT PARTS "

★MARK : SPARE PARTS-DELIVERY SECTION : ALL JAPAN

To have your order filled promptly and correctly, please furnish the following informations.

1. MODEL NUMBER **2. REF. NO.**
3. PART NO. **4. DESCRIPTION**
5. PRICE CODE

⚠ **MARK: SAFETY RELATED PARTS**

Ref. No.	Part No.	★	Description	Code

PRINTED WIRING BOARD ASSEMBLIES *(NOT REPLACEMENT ITEM)*

DUNTK2871PM02	MAIN1 PWB Unit(VL-PD3S)	–
DUNTK2871PM03	MAIN1 PWB Unit(VL-PD3H)	–
DUNTK2871PM04	MAIN1 PWB Unit (VL-PD3E/EW/EX)	–
DUNTK2872PM02	MAIN2 PWB Unit(VL-PD3S)	–
DUNTK2872PM03	MAIN2 PWB Unit(VL-PD3H)	–
DUNTK2872PM04	MAIN2 PWB Unit (VL-PD3E/EW/EX)	–
DUNTK2873QA02	CAMERA HEAD PWB Unit	–
DUNTK2874PM01	POWER PWB Unit	–
DUNTK2875QA02	LCD PWB Unit	–
RAMP-0028TAN1	HEAD AMP Unit	–
RUNTK0341TAZZ	JOINT PWB Unit	AU
RUNTK0343TAZZ	REMOTE CONTROL RECEIVER Unit	AM

DUNTK2871PM02 MAIN1 PWB UNIT(VL-PD3S) DUNTK2871PM03 MAIN1 PWB UNIT(VL-PD3H) DUNTK2871PM04 MAIN1 PWB UNIT(VL-PD3E/EW/EX)

INTEGRATED CIRCUITS

IC151	VHiADS933Y/-1	10-BIT ANALOG TO DIGITAL CONVERTER	AR
IC201	RH-iX0620TAZZ	IX0620TA(DIGITAL SIGNAL PROCESS)	BC
IC251	RH-iX0608TAZZ	IX0608TA (ELECTRIC ZOOM)	BB
IC252	VHiM5412450-1	4.7M FIELD MEMORY	BC
IC253	VHiM5412450-1	4.7M FIELD MEMORY	BC
IC401	RH-iX0629TAZZ	IX0629TA(CODEC)	BF
IC402	RH-iX0494TAZZ	IX0494TA(CODEC/ EXTERNAL MEMORY)	BD
IC451	RH-iX0468TAZZ	IX0468TA(CLOCK GENERATOR)	AR
IC601	VHiBH7761KV-1	AUDIO I/O	AS
IC701	RH-iX0693TAZZ	IX0657TA(SYSTEM CONTROL MICON)	AY
IC702	RH-iX0695TAZZ	IX0660TA(CHARACTER)	AN
IC703	VHiM24C08W6-1	E^2PROM	AH
IC1401	VHiC111306F-1	VIDEO OUTPUT PROCESS	AX
IC3701	RH-iX0709TAZZ	IX0659TA(SVART/LENS CONTROL MICON)	AX
IC3703	VHiTC7S04U/-1	INVERTER	AE
IC4441	VHiTC4W53U/-1	V 0+1 SW	AF
IC4453	RH-iX0625TAZZ	IX0625TA(DIGITAL ADC/DAC)	BC
IC4701	VHiMB88344F-1	D/A CONVERTER	AV
IC4702	VHiBU4051FV-1	MUX	AF

TRANSISTORS

Q251	VS2SB12956/-1	2SB12956	AB
Q601	VSFMG12///-1	FMG12	AD
Q602	VSXP4313///-1	XP4313	AC
Q606	VSXP4313///-1	XP4313	AC
Q701	VS2PA1774R/-1	2PA1774R	AB
Q702	VSUN9214///-1	UN9214	AB
Q1401	VSiMD16A///-1	IMD16A	AD
Q1402	VS2PA1774R/-1	2PA1774R	AB
Q1403	VSUPUMZ1///-1	UPUMZ1	AC
Q1404	VSUPUMZ1///-1	UPUMZ1	AC
Q1413	VS2PA1774R/-1	2PA1774R	AB
Q1414	VS2PA1774R/-1	2PA1774R	AB
Q1415	VSUPDC144EE-1	UPDC144EE	AB
Q1416	VSUPDC144EE-1	UPDC144EE	AB
Q4431	VSXP1213///-1	XP1213	AB
Q4432	VS2PA1774R/-1	2PA1774R	AB
Q4433	VS2PA1774R/-1	2PA1774R	AB
Q4434	VS2PA1774R/-1	2PA1774R	AB
Q4441	VS2PC4617R/-1	2PC4617R	AB
Q4442	VSXP6401///-1	XP6401	AB
Q4461	VSUPUMZ1///-1	UPUMZ1	AC
Q4462	VSUPUMZ1///-1	UPUMZ1	AC
Q4463	VSUPUMZ1///-1	UPUMZ1	AC
Q4464	VSUPUMZ1///-1	UPUMZ1	AC
Q4465	VSUPUMZ1///-1	UPUMZ1	AC
Q4701	VSUPDA114EE-1	UPDA114EE	AB

DIODES

D451	VHDHVC362//-1	Diode, DHVC362	AE
D452	VHDHVC362//-1	Diode, DHVC362	AE
D701	VHDDA221///-1	Diode, DDA221	AB
D1401	VHDMA133///-1	Diode, DMA133	AB
D1402	VHDBAV756S/-1	Diode, DBAV756S	AC
D4441	VHDKV1812K/-1	Diode, DKV1812K	AD
D4442	VHDKV1812K/-1	Diode, DKV1812K	AD

PACKAGED CIRCUITS

X452	RCRSC0109TAZZ	Crystal	AM
X701	RCRSC0032TAZZ	Crystal	AG
X4441	RCRSC0153TAZZ	Crystal	AN

FILTERS AND COILS

FL701	RFiLC0071TAZZ	Filter	AE
FL702	RCiLB0040TAZZ	Oscillation Coil	AF
FL3701	RFiLC0079TAZZ	Filter	AE
L151	VPD9M100KR86N	Peaking 10µH	AC
L201	VPAWM100K1R5N	Peaking 10µH	AC
L202	VPAWM100K1R5N	Peaking 10µH	AC
L203	VPAWM100K1R5N	Peaking 10µH	AC
L251	VPD9M100KR86N	Peaking 10µH	AC
L252	VPD9M100KR86N	Peaking 10µH	AC
L253	VPAWM100K1R5N	Peaking 10µH	AC
L451	VPCBM4R7MR25N	Peaking 4.7µH	AC
L452	VPCBM4R7MR25N	Peaking 4.7µH	AC
L453	VPCBM4R7MR25N	Peaking 4.7µH	AC
L454	RCiLC0014TAZZ	Coil	AC
L455	VPCBM4R7MR25N	Peaking 4.7µH	AC
L601	VPBSM220K1R7N	Peaking 22µH	AD
L602	VPBSM220K1R7N	Peaking 22µH	AD
L603	VPBSM220K1R7N	Peaking 22µH	AD
L701	VPM6N100MR75N	Peaking 10µH	AC
L1401	VPCBM470K2R4N	Peaking 47µH	AC
L1402	VPCBM470K2R4N	Peaking 47µH	AC
L1407	VPBWM470K2R6N	Peaking 47µH	AC
L3701	VPAWM100K1R5N	Peaking 10µH	AC

Ref. No.	Part No.	★	Description	Code
L4401	VPD9M150K1R3N		Peaking 15µH	AC
L4402	VPD9M220K2R0N		Peaking 22µH	AC
L4403	VPM6N100MR75N		Peaking 10µH	AC
L4441	VPCBM470K2R4N		Peaking 47µH	AC
L4442	RCiLP0275TAZZ		Coil	AD
L4461	VPM6N100MR75N		Peaking 10µH	AC
L4462	VPM6N100MR75N		Peaking 10µH	AC
X451	RFiLC0068TAZZ		Filter	AK
	CAPACITORS			
C151	RC-KZ0101TAZZ		3.3 6.3V	AD
C153	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C154	VCCCCZ1HH470J		47p 50V Ceramic	AB
C155	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C156	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C157	VCSATN0JJ156M		15 6.3V Tantalum	AD
C158	VCSAPR0JJ106M		10 6.3V Tantalum	AD
C159	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C160	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C163	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C164	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C165	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C201	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C202	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C203	VCSATA0JJ156M		15 6.3V Tantalum	AC
C204	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C205	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C206	VCSATA0JJ156M		15 6.3V Tantalum	AC
C208	VCSATA0JJ156M		15 6.3V Tantalum	AC
C209	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C210	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C211	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C212	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C213	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C216	VCSATA0JJ156M		15 6.3V Tantalum	AC
C222	VCCCCZ1HH151J		150p 50V Ceramic	AB
C251	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C252	VCSATA0JJ156M		15 6.3V Tantalum	AC
C253	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C254	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C255	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C256	VCSATA0JJ156M		15 6.3V Tantalum	AC
C257	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C258	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C259	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C260	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C261	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C262	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C263	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C264	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C266	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C267	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C268	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C269	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C270	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C271	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C272	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C273	VCSATA0JJ156M		15 6.3V Tantalum	AC
C274	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C275	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C276	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C277	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C278	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C279	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C280	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C401	RC-KZ0083TAZZ		Capacitor	AD
C402	RC-KZ0083TAZZ		Capacitor	AD
C403	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C404	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C405	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C406	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C407	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C408	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C409	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C411	RC-KZ0083TAZZ		Capacitor	AD

Ref. No.	Part No.	★	Description	Code
C412	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C413	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C414	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C415	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C416	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C418	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C419	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C420	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C451	VCCCCZ1HH180J		18p 50V Ceramic	AB
C452	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C453	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C454	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C455	VCKYCY0JB105K		1 6.3V Ceramic	AC
C456	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C457	VCKYCY0JB105K		1 6.3V Ceramic	AC
C458	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C459	RC-KZ0083TAZZ		Capacitor	AD
C460	VCKYCZ1HB102K		1000p 50V Ceramic	AB
C461	VCCCCZ1HH181J		180p 50V Ceramic	AB
C462	VCKYTV1AB105K		1 10V Ceramic	AD
C463	RC-KZ0100TAZZ		Capacitor	AD
C466	VCCCCZ1HH5R0C		5p 50V Ceramic	AC
C467	VCCCCZ1HH5R0C		5p 50V Ceramic	AC
C468	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C469	RC-KZ0083TAZZ		Capacitor	AD
C470	VCKYTV1AB105K		1 10V Ceramic	AD
C471	VCKYTV1EB104K		0.1 25V Ceramic	AB
C472	RC-KZ0100TAZZ		Capacitor	AD
C603	VCKYTV1CF225Z		2.2 16V Ceramic	AC
C605	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C606	VCKYCY0JF105Z		1 6.3V Ceramic	AB
C607	VCKYDQ1CR104K		0.1 16V Ceramic	AB
C608	VCKYDQ1CR104K		0.1 16V Ceramic	AB
C610	VCKYCZ1HB102K		1000p 50V Ceramic	AB
C611	VCKYCZ1HB102K		1000p 50V Ceramic	AB
C616	VCKYTV1CF225Z		2.2 16V Ceramic	AC
C617	VCKYCY0JF105Z		1 6.3V Ceramic	AB
C618	VCKYCZ1CB153K		0.015 16V Ceramic	AB
C619	VCKYCZ1CB153K		0.015 16V Ceramic	AB
C620	VCKYCZ1AB273K		0.027 10V Ceramic	AB
C621	VCKYCZ1HB222K		2200p 50V Ceramic	AB
C622	VCCCCZ1HH221J		220p 50V Ceramic	AB
C623	VCKYCZ1AB104K		0.1 10V Ceramic	AB
C624	VCKYCZ1EB472K		4700p 25V Ceramic	AB
C625	VCKYCZ1AB273K		0.027 10V Ceramic	AB
C626	VCKYCZ1HB222K		2200p 50V Ceramic	AB
C627	VCCCCZ1HH221J		220p 50V Ceramic	AB
C628	VCKYCZ1AB104K		0.1 10V Ceramic	AB
C629	VCKYCZ1EB472K		4700p 25V Ceramic	AB
C631	VCKYCY0JB105K		1 6.3V Ceramic	AC
C632	VCSATN0JJ156M		15 6.3V Tantalum	AD
C633	VCSATN0JJ156M		15 6.3V Tantalum	AD
C634	VCSATN1AJ106M		10 10V Tantalum	AD
C635	VCSATE1AJ476M		47 10V Tantalum	AD
C636	VCSATE1AJ476M		47 10V Tantalum	AD
C637	VCKYCY0JF105Z		1 6.3V Ceramic	AB
C638	VCSATN1AJ475M		4.7 10V Tantalum	AD
C639	VCSATN0JJ156M		15 6.3V Tantalum	AD
C640	VCSATE1AJ476M		47 10V Tantalum	AD
C641	VCKYCY0JF105Z		1 6.3V Ceramic	AB
C642	VCSATE0JJ107M		100 6.3V Tantalum	AE
C643	VCKYCZ1CB822K		8200p 16V Ceramic	AB
C644	VCKYCZ1CB822K		8200p 16V Ceramic	AB
C645	VCKYCY1CB104K		0.1 16V Ceramic	AB
C646	VCKYCY0JF105Z		1 6.3V Ceramic	AB
C701	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C702	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C703	VCKYTV1AB105K		1 10V Ceramic	AD
C704	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C705	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C706	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C707	VCKYCZ1HB102K		1000p 50V Ceramic	AB
C708	VCCCCZ1HH150J		15p 50V Ceramic	AB
C709	VCCCCZ1HH150J		15p 50V Ceramic	AB
C710	VCKYCZ1HB102K		1000p 50V Ceramic	AB

Ref. No.	Part No.	★	Description			Code
C711	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C712	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C713	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C714	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C715	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C1001	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C1401	VCKYCY1CF474Z		0.47	16V	Ceramic	AB
C1402	VCKYCY0JB105K		1	6.3V	Ceramic	AC
C1403	VCKYCY0JB105K		1	6.3V	Ceramic	AC
C1404	VCKYCY1CF474Z		0.47	16V	Ceramic	AB
C1405	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C1406	VCKYCY1CF474Z		0.47	16V	Ceramic	AB
C1407	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C1408	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C1409	VCSATE1AJ476M		47	10V	Tantalum	AD
C1410	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C1411	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C1412	VCKYCY1CF474Z		0.47	16V	Ceramic	AB
C1413	VCKYCY1CF474Z		0.47	16V	Ceramic	AB
C1414	VCSATE1AJ476M		47	10V	Tantalum	AD
C1415	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C1416	VCSATE0JJ107M		100	6.3V	Tantalum	AE
C1417	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C1418	VCSAPR1AJ475M		4.7	10V	Tantalum	AD
C1419	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C1420	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C1421	VCSAPR0JJ106M		10	6.3V	Tantalum	AD
C1423	VCSAPR1AJ475M		4.7	10V	Tantalum	AD
C1424	VCSATE0JJ107M		100	6.3V	Tantalum	AE
C1425	VCSAPR1AJ475M		4.7	10V	Tantalum	AD
C1426	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C1427	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C1428	VCSAPR0JJ106M		10	6.3V	Tantalum	AD
C1429	VCKYCY1CF474Z		0.47	16V	Ceramic	AB
C1430	VCKYCY1CF474Z		0.47	16V	Ceramic	AB
C1431	VCCCCZ1HH220J		22p	50V	Ceramic	AB
C1432	VCCCCZ1HH820J		82p	50V	Ceramic	AB
C1433	VCCCCZ1HH220J		22p	50V	Ceramic	AB
C1434	VCCCCZ1HH820J		82p	50V	Ceramic	AB
C1441	VCSATE1AJ476M		47	10V	Tantalum	AD
C1442	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C1447	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C3702	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C3703	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C3704	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C3705	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C3706	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C3707	VCKYTV1AB105K		1	10V	Ceramic	AD
C3708	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C4401	RC-KZ0083TAZZ		Capacitor			AD
C4402	RC-KZ0083TAZZ		Capacitor			AD
C4403	VCSATK0JJ476M		47	6.3V	Tantalum	AE
C4405	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C4406	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C4407	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C4408	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C4409	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C4410	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C4411	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C4412	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C4413	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C4414	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C4415	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C4416	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C4417	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C4418	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C4419	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C4420	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C4421	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C4422	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C4423	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C4424	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C4425	RC-KZ0083TAZZ		Capacitor			AD
C4426	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C4428	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C4429	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C4435	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C4436	VCSAPR0JJ106M		10	6.3V	Tantalum	AD
C4437	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C4441	VCSATA1AJ106M		10	10V	Tantalum	AC
C4442	VCCCCZ1HH220J		22p	50V	Ceramic	AB
C4445	VCCCCZ1HH220J		22p	50V	Ceramic	AB
C4446	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C4447	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C4448	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C4449	VCKYCZ1EB682K		6800p	25V	Ceramic	AB
C4450	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C4461	VCSAPR1AJ105M		1	10V	Tantalum	AD
C4462	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C4463	VCSATN1AJ106M		10	10V	Tantalum	AD
C4464	VCKYCY0JF105Z		1	6.3V	Ceramic	AB
C4465	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C4466	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C4468	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C4498	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C4499	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C4701	VCKYCY1AF105Z		1	10V	Ceramic	AC
C4702	VCKYCY1AF105Z		1	10V	Ceramic	AC
C4703	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C4704	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB

RESISTORS

R153	VRS-CZ1JF102J	1k	1/16W	Metal Oxide	AA
R154	VRS-CZ1JF221J	220	1/16W	Metal Oxide	AA
R155	VRS-CZ1JF000J	0	1/16W	Metal Oxide	AA
R160	VRS-CZ1JF000J	0	1/16W	Metal Oxide	AA
R202	VRS-CZ1JF000J	0	1/16W	Metal Oxide	AA
R204	VRS-CZ1JF000J	0	1/16W	Metal Oxide	AA
R216	VRS-CZ1JF000J	0	1/16W	Metal Oxide	AA
R217	VRS-CZ1JF000J	0	1/16W	Metal Oxide	AA
R223	VRS-CZ1JF102J	1k	1/16W	Metal Oxide	AA
R226	VRS-CZ1JF000J	0	1/16W	Metal Oxide	AA
R252	VRS-CZ1JF101J	100	1/16W	Metal Oxide	AA
R253	VRS-CZ1JF102J	1k	1/16W	Metal Oxide	AA
R255	VRS-CZ1JF102J	1k	1/16W	Metal Oxide	AA
R256	VRS-CZ1JF102J	1k	1/16W	Metal Oxide	AA
R258	VRS-CZ1JF101J	100	1/16W	Metal Oxide	AA
R259	VRS-CZ1JF102J	1k	1/16W	Metal Oxide	AA
R260	VRS-CZ1JF222J	2.2k	1/16W	Metal Oxide	AA
R262	VRS-CZ1JF102J	1k	1/16W	Metal Oxide	AA
R263	VRS-CZ1JF000J	0	1/16W	Metal Oxide	AA
R401	VRS-CY1JF000J	0	1/16W	Metal Oxide	AA
R402	VRS-CY1JF000J	0	1/16W	Metal Oxide	AA
R403	VRS-CZ1JF102J	1k	1/16W	Metal Oxide	AA
R404	VRS-CZ1JF102J	1k	1/16W	Metal Oxide	AA
R405	VRS-CZ1JF102J	1k	1/16W	Metal Oxide	AA
R406	VRS-CZ1JF000J	0	1/16W	Metal Oxide	AA
R453	VRS-CZ1JF224J	220k	1/16W	Metal Oxide	AA
R454	VRS-CZ1JF224J	220k	1/16W	Metal Oxide	AA
R455	VRS-CZ1JF472J	4.7k	1/16W	Metal Oxide	AA
R456	VRS-CZ1JF000J	0	1/16W	Metal Oxide	AA
R457	VRS-CZ1JF101J	100	1/16W	Metal Oxide	AA
R458	VRS-CZ1JF105J	1M	1/16W	Metal Oxide	AA
R461	VRS-CZ1JF105J	1M	1/16W	Metal Oxide	AA
R463	VRS-CZ1JF000J	0	1/16W	Metal Oxide	AA
R464	VRS-CZ1JF222J	2.2k	1/16W	Metal Oxide	AA
R465	VRS-CZ1JF181J	180	1/16W	Metal Oxide	AA
R466	VRS-CZ1JF000J	0	1/16W	Metal Oxide	AA
R467	VRS-CZ1JF103J	10k	1/16W	Metal Oxide	AA
R468	VRS-CZ1JF224J	220k	1/16W	Metal Oxide	AA
R497	VRS-CZ1JF000J	0	1/16W	Metal Oxide	AA
R603	VRS-CZ1JF102J	1k	1/16W	Metal Oxide	AA
R609	VRS-CZ1JF102J	1k	1/16W	Metal Oxide	AA
R613	VRS-CZ1JF683J	68k	1/16W	Metal Oxide	AA
R614	VRK-SA1JF222J	2.2k	1/16W	Metal Composition	AB
R616	VRS-CZ1JF683J	68k	1/16W	Metal Oxide	AA
R617	VRK-SA1JF222J	2.2k	1/16W	Metal Composition	AB
R621	VRS-CZ1JF332J	3.3k	1/16W	Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code
R622	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R623	VRS-CZ1JF222J		2.2k 1/16W Metal Oxide	AA
R624	VRS-CZ1JF223J		22k 1/16W Metal Oxide	AA
R625	VRS-CZ1JF222J		2.2k 1/16W Metal Oxide	AA
R626	VRS-CZ1JF223J		22k 1/16W Metal Oxide	AA
R627	VRS-CZ1JF333J		33k 1/16W Metal Oxide	AA
R628	VRS-CZ1JF332J		3.3k 1/16W Metal Oxide	AA
R629	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R630	VRS-CZ1JF222J		2.2k 1/16W Metal Oxide	AA
R631	VRS-CZ1JF223J		22k 1/16W Metal Oxide	AA
R632	VRS-CZ1JF223J		22k 1/16W Metal Oxide	AA
R633	VRS-CZ1JF222J		2.2k 1/16W Metal Oxide	AA
R634	VRS-CZ1JF333J		33k 1/16W Metal Oxide	AA
R635	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R636	VRS-CZ1JF153J		15k 1/16W Metal Oxide	AA
R638	VRS-CZ1JF225J		2.2M 1/16W Metal Oxide	AA
R639	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R640	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R641	VRS-CZ1JF562J		5.6k 1/16W Metal Oxide	AA
R646	VRS-CZ1JF333J		33k 1/16W Metal Oxide	AA
R647	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R652	VRS-CZ1JF334J		330k 1/16W Metal Oxide	AA
R653	VRS-CZ1JF334J		330k 1/16W Metal Oxide	AA
R654	VRS-CZ1JF273J		27k 1/16W Metal Oxide	AA
R655	VRK-SA1JF103J		10k 1/16W Metal Composition	AB
R656	VRS-CZ1JF184J		180k 1/16W Metal Oxide	AA
R663	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R701	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R702	VRS-CZ1JF332J		3.3k 1/16W Metal Oxide	AA
R703	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R704	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R705	VRK-SA1JF332J		3.3k 1/16W Metal Composition	AB
R706	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R707	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R708	VRK-SB1FF102J		1k 0.0315W Metal Composition	AC
R709	VRK-SB1FF102J		1k 0.0315W Metal Composition	AC
R710	VRS-CZ1JF474D		470k 1/16W Metal Oxide	AA
R711	VRS-CZ1JF823D		82k 1/16W Metal Oxide	AB
R712	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R713	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R714	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R715	VRS-CZ1JF106J		10M 1/16W Metal Oxide	AA
R716	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R717	VRK-SA1JF473J		47k 1/16W Metal Composition	AC
R718	VRS-CZ1JF473J		47k 1/16W Metal Oxide	AA
R719	VRK-SA1JF102J		1k 1/16W Metal Composition	AB
R720	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R721	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R722	VRS-CZ1JF153J		15k 1/16W Metal Oxide	AA
R723	VRS-CZ1JF272J		2.7k 1/16W Metal Oxide	AA
R724	VRK-SA1JF102J		1k 1/16W Metal Composition	AB
R726	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R727	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R728	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R729	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R1001	VRS-CZ1JF223J		22k 1/16W Metal Oxide	AA
R1002	VRS-CZ1JF273J		27k 1/16W Metal Oxide	AA
R1401	VRS-CZ1JF390J		39 1/16W Metal Oxide	AA
R1402	VRS-CZ1JF390J		39 1/16W Metal Oxide	AA
R1403	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R1404	VRS-CZ1JF183J		18k 1/16W Metal Oxide	AA
R1406	VRS-CZ1JF123J		12k 1/16W Metal Oxide	AA
R1408	VRS-CZ1JF153J		15k 1/16W Metal Oxide	AA
R1410	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R1411	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R1415	VRS-CZ1JF390J		39 1/16W Metal Oxide	AA
R1416	VRK-SA1JF102J		1k 1/16W Metal Composition	AB
R1418	VRS-CZ1JF750J		75 1/16W Metal Oxide	AA
R1419	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R1420	VRS-CZ1JF122J		1.2k 1/16W Metal Oxide	AA
R1421	VRK-SA1JF102J		1k 1/16W Metal Composition	AB
R1424	VRK-SA1JF102J		1k 1/16W Metal Composition	AB
R1425	VRS-CZ1JF273J		27k 1/16W Metal Oxide	AA
R1426	VRS-CZ1JF390J		39 1/16W Metal Oxide	AA
R1430	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R1432	VRS-CZ1JF122J		1.2k 1/16W Metal Oxide	AA
R1433	VRS-CZ1JF272J		2.7k 1/16W Metal Oxide	AA
R1434	VRS-CZ1JF222J		2.2k 1/16W Metal Oxide	AA
R1436	VRS-CZ1JF122J		1.2k 1/16W Metal Oxide	AA
R1437	VRS-CZ1JF222J		2.2k 1/16W Metal Oxide	AA
R1438	VRS-CZ1JF561J		560 1/16W Metal Oxide	AA
R1439	VRS-CZ1JF561J		560 1/16W Metal Oxide	AA
R1440	VRS-CZ1JF471J		470 1/16W Metal Oxide	AA
R1441	VRS-CZ1JF222J		2.2k 1/16W Metal Oxide	AA
R1442	VRS-CZ1JF561J		560 1/16W Metal Oxide	AA
R1443	VRS-CZ1JF561J		560 1/16W Metal Oxide	AA
R1444	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R1445	VRS-CZ1JF122J		1.2k 1/16W Metal Oxide	AA
R1447	VRS-CZ1JF272J		2.7k 1/16W Metal Oxide	AA
R1449	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R1451	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R1455	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R1459	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R1465	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R1467	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R1471	VRS-CZ1JF332J		3.3k 1/16W Metal Oxide	AA
R1472	VRS-CZ1JF332J		3.3k 1/16W Metal Oxide	AA
R3701	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R3702	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R3703	VRK-SA1JF104J		100k 1/16W Metal Composition	AB
R3704	VRK-SA1JF224J		220k 1/16W Metal Composition	AC
R3705	VRK-SB1FF103J		10k 0.0315W Metal Composition	AC
R3706	VRK-SB1FF102J		1k 0.0315W Metal Composition	AC
R3707	VRK-SA1JF102J		1k 1/16W Metal Composition	AB
R3708	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R3710	VRS-CZ1JF101J		100 1/16W Metal Oxide	AA
R3711	VRS-CZ1JF332J		3.3k 1/16W Metal Oxide	AA
R3712	VRS-CZ1JF101J		100 1/16W Metal Oxide	AA
R3713	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R3715	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R3716	VRK-SB1FF102J		1k 0.0315W Metal Composition	AC
R3717	VRK-SB1FF102J		1k 0.0315W Metal Composition	AC
R4401	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R4402	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R4403	VRS-CZ1JF473J		47k 1/16W Metal Oxide	AA
R4404	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R4405	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R4406	VRS-CZ1JF473J		47k 1/16W Metal Oxide	AA
R4407	VRS-CZ1JF152J		1.5k 1/16W Metal Oxide	AA
R4408	VRS-CZ1JF822J		8.2k 1/16W Metal Oxide	AA
R4409	VRS-CZ1JF152J		1.5k 1/16W Metal Oxide	AA
R4410	VRS-CZ1JF331J		330 1/16W Metal Oxide	AA
R4411	VRS-CZ1JF822J		8.2k 1/16W Metal Oxide	AA
R4412	VRS-CZ1JF153J		15k 1/16W Metal Oxide	AA
R4413	VRS-CZ1JF183J		18k 1/16W Metal Oxide	AA
R4414	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R4415	VRS-CZ1JF331J		330 1/16W Metal Oxide	AA
R4416	VRS-CZ1JF822J		8.2k 1/16W Metal Oxide	AA
R4417	VRS-CZ1JF153J		15k 1/16W Metal Oxide	AA
R4418	VRS-CZ1JF183J		18k 1/16W Metal Oxide	AA
R4419	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R4420	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R4421	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code
R4422	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R4426	VRS-CZ1JF103D		10k 1/16W Metal Oxide	AB
R4430	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R4431	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R4432	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R4435	VRS-CZ1JF330J		33 1/16W Metal Oxide	AA
R4436	VRS-CZ1JF152J		1.5k 1/16W Metal Oxide	AA
R4437	VRS-CZ1JF152J		1.5k 1/16W Metal Oxide	AA
R4441	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R4442	VRS-CZ1JF105J		1M 1/16W Metal Oxide	AA
R4443	VRS-CZ1JF181J		180 1/16W Metal Oxide	AA
R4444	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R4445	VRS-CZ1JF101J		100 1/16W Metal Oxide	AA
R4447	VRS-CZ1JF332J		3.3k 1/16W Metal Oxide	AA
R4448	VRS-CZ1JF562D		5.6k 1/16W Metal Oxide	AB
R4449	VRS-CZ1JF122D		1.2k 1/16W Metal Oxide	AB
R4451	VRS-CZ1JF273D		27k 1/16W Metal Oxide	AA
R4452	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R4453	VRS-CZ1JF332J		3.3k 1/16W Metal Oxide	AA
R4454	VRS-CZ1JF103D		10k 1/16W Metal Oxide	AB
R4455	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R4461	VRS-CZ1JF272J		2.7k 1/16W Metal Oxide	AA
R4462	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R4463	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R4464	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R4465	VRS-CZ1JF391J		390 1/16W Metal Oxide	AA
R4466	VRS-CZ1JF272J		2.7k 1/16W Metal Oxide	AA
R4467	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R4468	VRS-CZ1JF183J		18k 1/16W Metal Oxide	AA
R4469	VRS-CZ1JF332J		3.3k 1/16W Metal Oxide	AA
R4470	VRS-CZ1JF331J		330 1/16W Metal Oxide	AA
R4471	VRS-CZ1JF474J		470k 1/16W Metal Oxide	AA
R4472	VRS-CZ1JF332J		3.3k 1/16W Metal Oxide	AA
R4473	VRS-CZ1JF821J		820 1/16W Metal Oxide	AA
R4477	VRS-CZ1JF363D		36k 1/16W Metal Oxide	AA
R4479	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R4484	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R4701	VRS-CZ1JF105J		1M 1/16W Metal Oxide	AA
R4702	VRS-CZ1JF104D		100k 1/16W Metal Oxide	AB
R4703	VRS-CZ1JF224J		220k 1/16W Metal Oxide	AA
R4704	VRS-CZ1JF104D		100k 1/16W Metal Oxide	AB
R4705	VRS-CZ1JF334J		330k 1/16W Metal Oxide	AA
R4706	VRS-CZ1JF104D		100k 1/16W Metal Oxide	AB
R4707	VRS-CZ1JF823J		82k 1/16W Metal Oxide	AA
R4708	VRS-CZ1JF104D		100k 1/16W Metal Oxide	AB
R4709	VRS-CZ1JF823J		82k 1/16W Metal Oxide	AA
R4710	VRS-CZ1JF104D		100k 1/16W Metal Oxide	AB
R4711	VRS-CZ1JF224J		220k 1/16W Metal Oxide	AA
R4712	VRS-CZ1JF104D		100k 1/16W Metal Oxide	AB
R4713	VRS-CZ1JF184J		180k 1/16W Metal Oxide	AA
R4714	VRS-CZ1JF104D		100k 1/16W Metal Oxide	AB
R4715	VRS-CZ1JF393J		39k 1/16W Metal Oxide	AA
R4716	VRS-CZ1JF104D		100k 1/16W Metal Oxide	AB

MISCELLANEOUS PARTS

FB1001	RBLN-0028TAZZ	Balun, BLN-0028TA	AB
FB1002	RBLN-0106TAZZ	Balun, BLN-0106TA	AB
FB1003	RBLN-0028TAZZ	Balun, BLN-0028TA	AB
FB1004	RBLN-0028TAZZ	Balun, BLN-0028TA	AB
FB1005	RBLN-0028TAZZ	Balun, BLN-0028TA	AB
P601	QPLGN0374TAZZ	Plug, 3pin	AC
P1001	QCNCM5069TAZZ	Plug, 50pin	AG
P1002	QCNCM9167TAZZ	Plug, 100pin	AK
P3701	QPLGN0376TAZZ	Plug, 3pin	AD
SC1001	QSOCN2886TAZZ	Socket, 28pin	AE
SC1003	QSOCN5111TAN1	Socket, 51pin	AH
SC3702	QSOCN0560TAZZ	Socket, 5pin	AC

DUNTK2872PM02 MAIN2 PWB UNIT(VL-PD3S)
DUNTK2872PM03 MAIN2 PWB UNIT(VL-PD3H)
DUNTK2872PM04 MAIN2 PWB UNIT(VL-PD3E/EW/EX)

INTEGRATED CIRCUITS

IC431	RH-iX0630TAZZ	IX0630TA(TRANSPORT)	BG
IC432	RH-iX0616TAZZ	IX0616TA(ECC EXTERNAL MEMORY)	AW
IC491	VHiM40C558V-1	A/D CONVERTER	AX
IC980	VHiTA75S01F-1	AMP	AD
IC1601	VHiAK4518VF-1	ADC/DAC	AQ
IC1650	RH-iX0632TAZZ	IX0632TA(PCM)	BB
IC1651	VHiTC75S54F-1	AMP	AF
IC1702	VHiLB1990WA-1	MOTOR DRIVE	AS
IC1902	VHiTK11900M-1	TK11900M	AF
IC1971	VHiBU2090FS-1	SERIAL IN/PARALLEL OUT DRIVER	AG
IC3401	VHiBH7268KV-1	PLL	BB
IC3402	VHiBH7273KV-1	EQ/ATF	BA
IC3403	VHiAD8561RU-1	COMPARATOR	AQ
IC7401	VHiMB86611/-1	IEEE1394 CONTROLLER	BB
IC7701	RH-iX0694TAZZ	IX0658TA(MECHA CONTROL MICON)	AX
IC7702	VHiTA75W01/-1	SERVO ERROR AMP	AF
IC8800	VHiCXA2503A-1	VF RGB DECODER CONTROLLER	AZ
IC9800	VHiT7SET08U-1	BUFFER	AE

TRANSISTORS

Q943	VSXP4316///-1	XP4316	AC
Q1701	VSXP6501///-1	XP6501	AB
Q1702	VSXP4113///-1	XP4113	AA
Q1703	VS2PA1774R/-1	2PA1774R	AB
Q1704	VSCPH3206//-1	CPH3206	AD
Q1901	VSUN9214///-1	UN9214	AB
Q1902	VSSi2301DS/-1	Si2301DS	AE
Q1903	VSSi2301DS/-1	Si2301DS	AE
Q1904	VSXP4113///-1	XP4113	AA
Q1905	VSXN4404///-1	XN4404	AD
Q1906	VSSi2301DS/-1	Si2301DS	AE
Q1908	VSXP4113///-1	XP4113	AA
Q1909	VSXP4113///-1	XP4113	AA
Q1910	VS2SD1979S/-1	2SD1979S	AE
Q1911	VSXP1213///-1	XP1213	AB
Q1914	VSUPUMX1///-1	UPUMX1	AC
Q1915	VSSi2301DS/-1	Si2301DS	AE
Q1916	VSSi2301DS/-1	Si2301DS	AE
Q2401	VSXP6501///-1	XP6501	AB
Q2402	VSXP6401///-1	XP6401	AB
Q2403	VSXP6401///-1	XP6401	AB
Q2404	VSXP6401///-1	XP6401	AB
Q2405	VSXP6501///-1	XP6501	AB
Q2406	VSXP6501///-1	XP6501	AB
Q3401	VS2SC4627CD-1	2SC4627CD	AB
Q7401	VSCPH3206//-1	CPH3206	AD
Q7402	VSUPUMD3///-1	UPUMD3	AC
Q7403	VSUPDA114EE-1	UPDA114EE	AB
Q8800	VSUPUMZ1///-1	UPUMZ1	AC

DIODES

D1902	VHDMA132WK/-1	Diode, DMA132WK	AA
D3401	VHDMA137///-1	Diode, DMA137	AC
D7401	VHDBAV70S//-1	Diode, DBAV70S	AC
D7402	VHDBAW56S//-1	Diode, DBAW56S	AC
D8800	VHD1T406///-1	Diode, D1T406	AD

PACKAGED CIRCUITS

X431	RCRSC0110TAZZ	Crystal	AL
X1650	RCRSC0107TAZZ	Crystal	AL
X7401	RCRSC0127TAZZ	Crystal	AM
X7701	RCRSC0132TAZZ	Crystal	AK
X8800	RCRSC0151TAZZ	Crystal	AH

Ref. No.	Part No.	★	Description			Code
			COILS			
FL1650	RCiLZ0283TAZZ		Coil			AV
FL2401	RCiLF0391TAZZ		Coil			AG
FL3401	RCiLF0376TAZZ		Coil			AH
FL3402	RCiLF0375TAZZ		Coil			AG
FL3403	RCiLF0375TAZZ		Coil			AG
L456	VPM6N4R7MR45N		Peaking	4.7µH		AC
L491	VPM6N4R7MR45N		Peaking	4.7µH		AC
L1601	VPM6N100MR75N		Peaking	10µH		AC
L1650	VPM6N100MR75N		Peaking	10µH		AC
L1701	VPM6N100MR75N		Peaking	10µH		AC
L1901	VPBSM4R7MR40N		Peaking	4.7µH		AD
L1902	VPBSM2R2MR23N		Peaking	2.2µH		AC
L1903	VPM6N4R7MR45N		Peaking	4.7µH		AC
L1904	VPBSM2R2MR23N		Peaking	2.2µH		AC
L1905	VPBSM2R2MR23N		Peaking	2.2µH		AC
L1907	VPBSM2R2MR23N		Peaking	2.2µH		AC
L1908	VPBSM4R7MR40N		Peaking	4.7µH		AD
L1909	VPBSM100KR70N		Peaking	10µH		AC
L1910	VPBUM2R2MR20N		Peaking	2.2µH		AC
L2401	VPD9M5R6J1R6N		Peaking	5.6µH		AC
L2402	VPD9M5R6J1R6N		Peaking	5.6µH		AC
L3401	VPCBM4R7MR25N		Peaking	4.7µH		AC
L3402	VPCBM4R7MR25N		Peaking	4.7µH		AC
L3403	VPCBM4R7MR25N		Peaking	4.7µH		AC
L3406	VPAWM1R0JR70N		Peaking	1µH		AC
L3407	VPCBM4R7MR25N		Peaking	4.7µH		AC
L3410	VPM6N4R7MR45N		Peaking	4.7µH		AC
L7701	VPM6N100MR75N		Peaking	10µH		AC
L8800	VPM6N100MR75N		Peaking	10µH		AC
L8801	VPAWM100J2R6N		Peaking	10µH		AC
L8802	VPAWM120J2R8N		Peaking	12µH		AD
L9801	VPBSM220K1R7N		Peaking	22µH		AD
			CONTROL			
R3404	RVR-M7994TAZZ		Variable Resistor			AB
			CAPACITORS			
C431	RC-KZ0083TAZZ		Capacitor			AD
C433	RC-KZ0083TAZZ		Capacitor			AD
C435	VCCCCZ1HH5R0C		5p	50V	Ceramic	AC
C436	VCCCCZ1HH5R0C		5p	50V	Ceramic	AC
C437	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C438	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C439	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C442	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C443	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C444	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C445	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C447	VCSATK0JJ476M		47	6.3V	Tantalum	AE
C448	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C449	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C490	VCCCCZ1HH100D		10p	50V	Ceramic	AB
C491	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C492	RC-KZ0083TAZZ		Capacitor			AD
C493	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C494	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C495	VCCCCZ1HH100D		10p	50V	Ceramic	AB
C496	VCSAPR0JJ106M		10	6.3V	Tantalum	AD
C497	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C498	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C980	VCKYCZ1AB104K		0.1	10V	Ceramic	AB
C981	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C982	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C1601	VCSAPR0JJ106M		10	6.3V	Tantalum	AD
C1602	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C1603	VCKYCY0JB105K		1	6.3V	Ceramic	AC
C1604	VCKYCY0JB105K		1	6.3V	Ceramic	AC
C1605	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C1606	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C1607	VCSAPR0JJ106M		10	6.3V	Tantalum	AD
C1608	VCSAPR0JJ106M		10	6.3V	Tantalum	AD
C1609	VCKYCZ1HB222K		2200p	50V	Ceramic	AB
C1610	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C1611	VCKYTV1CB224K		0.22	16V	Ceramic	AB
C1612	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C1613	VCSAPR1AJ475M		4.7	10V	Tantalum	AD
C1614	VCKYCZ1HB222K		2200p	50V	Ceramic	AB
C1615	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C1616	VCSAPR1AJ475M		4.7	10V	Tantalum	AD
C1617	VCKYTV1CB224K		0.22	16V	Ceramic	AB
C1652	VCKYTV1CF225Z		2.2	16V	Ceramic	AC
C1654	RC-KZ0101TAZZ		Capacitor			AD
C1655	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C1656	VCSAPR0JJ106M		10	6.3V	Tantalum	AD
C1657	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C1658	VCKYTV1CF225Z		2.2	16V	Ceramic	AC
C1659	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C1660	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C1661	VCSAPR1AJ475M		4.7	10V	Tantalum	AD
C1662	VCKYCY1CB473K		0.047	16V	Ceramic	AA
C1663	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C1664	VCCCCZ1HH270J		27p	50V	Ceramic	AB
C1665	VCCCCZ1HH270J		27p	50V	Ceramic	AB
C1666	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C1667	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C1668	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C1669	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C1670	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C1701	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C1702	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C1703	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C1704	VCKYTV1AB105K		1	10V	Ceramic	AD
C1705	VCKYTV1AB105K		1	10V	Ceramic	AD
C1706	VCKYCY1AF105Z		1	10V	Ceramic	AC
C1707	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C1708	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C1709	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C1710	RC-KZ0083TAZZ		Capacitor			AD
C1711	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C1712	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C1713	VCKYCY0JB105K		1	6.3V	Ceramic	AC
C1714	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C1715	VCKYCZ1HB392K		3900p	50V	Ceramic	AA
C1716	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C1717	VCKYCZ1HB392K		3900p	50V	Ceramic	AA
C1718	VCKYCZ1HB392K		3900p	50V	Ceramic	AA
C1719	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C1720	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C1721	VCKYCY1AF105Z		1	10V	Ceramic	AC
C1722	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C1723	VCKYCY1AF105Z		1	10V	Ceramic	AC
C1724	VCKYCY1CB473K		0.047	16V	Ceramic	AA
C1725	VCKYCZ1EB472K		4700p	25V	Ceramic	AB
C1726	VCKYCY1AF105Z		1	10V	Ceramic	AC
C1727	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C1728	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C1730	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C1731	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C1732	VCKYCY1AF105Z		1	10V	Ceramic	AC
C1735	VCCCCZ1HH101J		100p	50V	Ceramic	AB
C1901	VCKYTV1EB104K		0.1	25V	Ceramic	AB
C1902	VCKYTV1AB105K		1	10V	Ceramic	AD
C1903	VCKYTV1AB105K		1	10V	Ceramic	AD
C1904	VCKYCZ1AB104K		0.1	10V	Ceramic	AB
C1905	VCKYCZ1HB332K		3300p	50V	Ceramic	AA
C1906	VCKYCY0JB105K		1	6.3V	Ceramic	AC
C1907	VCKYTV1AB105K		1	10V	Ceramic	AD
C1908	VCKYTV1AB105K		1	10V	Ceramic	AD
C1909	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C1910	VCKYTV1CB105K		1	16V	Ceramic	AC
C1911	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C1912	VCKYTV1AB105K		1	10V	Ceramic	AD
C1913	VCKYTV1AB105K		1	10V	Ceramic	AD
C1914	VCKYCZ1HB332K		3300p	50V	Ceramic	AA
C1915	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C1916	VCSATE1AJ476M		47	10V	Tantalum	AD
C1917	VCKYTV1AB105K		1	10V	Ceramic	AD
C1967	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C1971	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB

Ref. No.	Part No.	★	Description			Code
C2401	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C2402	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C3401	VCCCCZ1HH220J		22p	50V	Ceramic	AB
C3402	VCKYCZ1AF224Z		0.22	10V	Ceramic	AB
C3403	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C3404	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C3405	VCKYTV1CF334Z		0.33	16V	Ceramic	AB
C3406	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C3407	VCSATA0JJ226M		22	6.3V	Tantalum	AD
C3408	VCCCCZ1HH120J		12p	50V	Ceramic	AB
C3409	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C3410	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C3411	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C3412	VCSAPR0JJ106M		10	6.3V	Tantalum	AD
C3413	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C3414	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C3415	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C3416	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C3417	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C3418	VCCCCZ1HH120J		12p	50V	Ceramic	AB
C3419	VCSAPR0JJ106M		10	6.3V	Tantalum	AD
C3420	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C3421	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C3422	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C3423	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C3424	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C3425	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C3426	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C3427	VCKYCZ1CB223K		0.022	16V	Ceramic	AC
C3428	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C3429	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C3430	VCKYCY1AF105Z		1	10V	Ceramic	AC
C3432	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C3434	RC-KZ0083TAZZ		Capacitor			AD
C3436	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C3437	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C3440	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C3443	VCSATA1AJ106M		10	10V	Tantalum	AC
C3444	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C3445	VCCCCZ1HH680J		68p	50V	Ceramic	AB
C3446	VCCCCZ1HH220J		22p	50V	Ceramic	AB
C3448	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C3449	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C3450	VCCCCZ1HH120J		12p	50V	Ceramic	AB
C3452	VCCCCZ1HH680J		68p	50V	Ceramic	AB
C3456	VCCCCZ1HH150J		15p	50V	Ceramic	AB
C3457	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C3458	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C3459	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C3460	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C3461	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C3462	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C3463	RC-KZ0083TAZZ		Capacitor			AD
C3464	VCCCCZ1HH100D		10p	50V	Ceramic	AB
C3465	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C3466	VCCCCZ1HH100D		10p	50V	Ceramic	AB
C3467	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C3468	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C3469	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C3470	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C3471	VCCCCZ1HH100D		10p	50V	Ceramic	AB
C3472	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C3473	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C3475	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C3476	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C3477	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C3478	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C3490	VCSATN1AJ106M		10	10V	Tantalum	AD
C3491	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C3492	VCCCCZ1HH150J		15p	50V	Ceramic	AB
C7401	RC-KZ0083TAZZ		Capacitor			AD
C7402	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C7403	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C7404	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C7405	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C7406	VCCCCZ1HH150J		15p	50V	Ceramic	AB
C7407	VCCCCZ1HH150J		15p	50V	Ceramic	AB
C7408	VCCCCZ1HH101J		100p	50V	Ceramic	AB
C7409	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C7410	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C7411	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C7412	RC-KZ0083TAZZ		Capacitor			AD
C7413	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C7414	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C7415	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C7416	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C7417	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C7418	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C7419	VCKYCZ1HB271K		270p	50V	Ceramic	AC
C7420	VCKYCY0JB105K		1	6.3V	Ceramic	AC
C7421	VCKYCZ1HB221K		220p	50V	Ceramic	AA
C7422	VCKYCY0JB105K		1	6.3V	Ceramic	AC
C7423	VCCCCZ1HH330J		33p	50V	Ceramic	AB
C7701	VCKYCZ1EB682K		6800p	25V	Ceramic	AB
C7702	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C7703	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C7704	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C7705	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C7706	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C7707	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C7708	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C7709	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C7710	VCKYCY0JB105K		1	6.3V	Ceramic	AC
C7711	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C7712	VCKYCZ1AF104Z		0.1	10V	Ceramic	AB
C7713	VCCCCZ1HH120J		12p	50V	Ceramic	AB
C7714	VCCCCZ1HH120J		12p	50V	Ceramic	AB
C8800	RC-KZ0055TAZZ		Capacitor			AD
C8801	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C8802	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C8803	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C8804	VCKYCY1AB224K		0.22	10V	Ceramic	AB
C8805	VCKYCY1CB683K		0.068	16V	Ceramic	AC
C8806	VCKYCY0JB105K		1	6.3V	Ceramic	AC
C8807	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C8808	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C8810	VCKYCY1AF105Z		1	10V	Ceramic	AC
C8811	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C8812	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C8813	VCKYCZ1CB103K		0.01	16V	Ceramic	AB
C8814	VCKYCZ1AB104K		0.1	10V	Ceramic	AB
C8815	VCKYCZ1AB104K		0.1	10V	Ceramic	AB
C8816	VCKYCY1CB333K		0.033	16V	Ceramic	AA
C8817	VCKYTV1CB474K		0.47	16V	Ceramic	AC
C8818	VCKYCZ1AB104K		0.1	10V	Ceramic	AB
C8819	VCSAPR1AJ335M		3.3	10V	Tantalum	AD
C8820	VCKYCZ1EB682K		6800p	25V	Ceramic	AB
C8821	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C8822	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C8823	VCCCCZ1HH390J		39p	50V	Ceramic	AB
C8824	VCKYCY0JB105K		1	6.3V	Ceramic	AC
C8825	VCSATN1CJ225M		2.2	16V	Tantalum	AH
C8826	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB
C8827	VCKYTV1CB105K		1	16V	Ceramic	AC
C8828	VCKYCZ1HB102K		1000p	50V	Ceramic	AB
C8830	VCCCCZ1HH330J		33p	50V	Ceramic	AB
C8831	VCCCCZ1HH330J		33p	50V	Ceramic	AB
C8832	VCCCCZ1HH330J		33p	50V	Ceramic	AB
C9800	VCKYCZ1HF103Z		0.01	50V	Ceramic	AB

RESISTORS

R431	VRS-CZ1JF000J		0	1/16W	Metal Oxide	AA
R432	VRS-CZ1JF000J		0	1/16W	Metal Oxide	AA
R433	VRS-CZ1JF101J		100	1/16W	Metal Oxide	AA
R434	VRS-CZ1JF000J		0	1/16W	Metal Oxide	AA
R435	VRS-CZ1JF101J		100	1/16W	Metal Oxide	AA
R436	VRS-CZ1JF101J		100	1/16W	Metal Oxide	AA
R437	VRS-CZ1JF000J		0	1/16W	Metal Oxide	AA
R438	VRS-CZ1JF103J		10k	1/16W	Metal Oxide	AA
R439	VRS-CZ1JF105J		1M	1/16W	Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code
R440	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R441	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R442	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R443	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R444	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R492	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R493	VRS-CZ1JF220J		22 1/16W Metal Oxide	AA
R495	VRS-CZ1JF220J		22 1/16W Metal Oxide	AA
R970	VRS-CZ1JF473J		47k 1/16W Metal Oxide	AA
R980	VRS-CZ1JF183D		18k 1/16W Metal Oxide	AB
R981	VRS-CZ1JF102D		1k 1/16W Metal Oxide	AA
R982	VRS-CY1JFR22J		0.22 1/16W Metal Oxide	AA
R983	VRS-CY1JFR22J		0.22 1/16W Metal Oxide	AA
R984	VRS-CZ1JF121J		120 1/16W Metal Oxide	AA
R1602	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R1603	VRS-CZ1JF471J		470 1/16W Metal Oxide	AA
R1604	VRS-CZ1JF471J		470 1/16W Metal Oxide	AA
R1650	VRS-CZ1JF101J		100 1/16W Metal Oxide	AA
R1651	VRS-CZ1JF153J		15k 1/16W Metal Oxide	AA
R1652	VRS-CZ1JF823J		82k 1/16W Metal Oxide	AA
R1654	VRS-CZ1JF334J		330k 1/16W Metal Oxide	AA
R1655	VRS-CZ1JF154J		150k 1/16W Metal Oxide	AA
R1656	VRS-CZ1JF471J		470 1/16W Metal Oxide	AA
R1657	VRS-CZ1JF105J		1M 1/16W Metal Oxide	AA
R1658	VRS-CZ1JF101J		100 1/16W Metal Oxide	AA
R1662	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R1667	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R1670	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R1701	VRK-SA1JF100J		10 1/16W Metal Composition	AB
R1702	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R1703	VRS-CZ1JF124J		120k 1/16W Metal Oxide	AA
R1704	VRS-CZ1JF683J		68k 1/16W Metal Oxide	AA
R1705	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R1706	VRS-CZ1JF1R0J		1 1/16W Metal Oxide	AA
R1707	VRS-CZ1JF1R0J		1 1/16W Metal Oxide	AA
R1708	VRS-CZ1JF1R0J		1 1/16W Metal Oxide	AA
R1709	VRS-CZ1JF1R0J		1 1/16W Metal Oxide	AA
R1710	VRS-CZ1JF105J		1M 1/16W Metal Oxide	AA
R1711	VRS-CZ1JF331J		330 1/16W Metal Oxide	AA
R1712	VRS-CZ1JF621J		620 1/16W Metal Oxide	AA
R1713	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R1714	VRS-CZ1JF223J		22k 1/16W Metal Oxide	AA
R1715	VRK-SA1JF182J		1.8k 1/16W Metal Composition	AC
R1716	VRK-SA1JF182J		1.8k 1/16W Metal Composition	AC
R1717	VRS-CZ1JF222J		2.2k 1/16W Metal Oxide	AA
R1718	VRS-CZ1JF912J		9.1k 1/16W Metal Oxide	AB
R1719	VRS-CZ1JF562J		5.6k 1/16W Metal Oxide	AA
R1720	VRK-SA1JF180J		18 1/16W Metal Composition	AC
R1721	VRK-SA1JF102J		1k 1/16W Metal Composition	AB
R1722	VRK-SA1JF472J		4.7k 1/16W Metal Composition	AD
R1740	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R1901	VRS-CZ1JF432D		4.3k 1/16W Metal Oxide	AA
R1902	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R1903	VRS-CZ1JF273D		27k 1/16W Metal Oxide	AA
R1904	VRS-CZ1JF105J		1M 1/16W Metal Oxide	AA
R1905	VRS-CZ1JF105J		1M 1/16W Metal Oxide	AA
R1906	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R1907	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R1908	VRS-CZ1JF222J		2.2k 1/16W Metal Oxide	AA
R1909	VRS-CZ1JF105J		1M 1/16W Metal Oxide	AA
R1910	VRS-CZ1JF222J		2.2k 1/16W Metal Oxide	AA
R1911	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R1912	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R1913	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R1914	VRS-CZ1JF124J		120k 1/16W Metal Oxide	AA
R1916	VRS-CZ1JF105J		1M 1/16W Metal Oxide	AA
R1917	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R1918	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R1919	VRS-CZ1JF124J		120k 1/16W Metal Oxide	AA
R1920	VRS-CZ1JF105J		1M 1/16W Metal Oxide	AA
R1921	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R1938	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R1939	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R1944	VRS-CZ1JF104D		100k 1/16W Metal Oxide	AB
R1945	VRS-CZ1JF183D		18k 1/16W Metal Oxide	AB
R1946	VRS-CZ1JF331J		330 1/16W Metal Oxide	AA
R1947	VRS-CZ1JF682J		6.8k 1/16W Metal Oxide	AA
R1948	VRS-CZ1JF333D		33k 1/16W Metal Oxide	AB
R2403	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R2404	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R2407	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R2408	VRS-CZ1JF101J		100 1/16W Metal Oxide	AA
R2409	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R2410	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R2411	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R2412	VRK-SA1JF472J		4.7k 1/16W Metal Composition	AD
R2413	VRK-SA1JF102J		1k 1/16W Metal Composition	AB
R2414	VRK-SA1JF472J		4.7k 1/16W Metal Composition	AD
R2415	VRK-SA1JF102J		1k 1/16W Metal Composition	AB
R2416	VRK-SA1JF472J		4.7k 1/16W Metal Composition	AD
R2417	VRK-SA1JF102J		1k 1/16W Metal Composition	AB
R2418	VRK-SA1JF102J		1k 1/16W Metal Composition	AB
R2419	VRK-SA1JF102J		1k 1/16W Metal Composition	AB
R2420	VRK-SA1JF182J		1.8k 1/16W Metal Composition	AC
R2421	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R2422	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R2423	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R2424	VRS-CZ1JF182J		1.8k 1/16W Metal Oxide	AA
R2425	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R3401	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R3402	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R3403	VRS-CZ1JF391J		390 1/16W Metal Oxide	AA
R3405	VRS-CZ1JF273D		27k 1/16W Metal Oxide	AA
R3406	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R3407	VRS-CZ1JF152J		1.5k 1/16W Metal Oxide	AA
R3408	VRS-CZ1JF822J		8.2k 1/16W Metal Oxide	AA
R3409	VRS-CZ1JF332J		3.3k 1/16W Metal Oxide	AA
R3411	VRS-CZ1JF123D		12k 1/16W Metal Oxide	AA
R3412	VRS-CZ1JF243D		24k 1/16W Metal Oxide	AA
R3413	VRS-CZ1JF333J		33k 1/16W Metal Oxide	AA
R3414	VRS-CZ1JF331J		330 1/16W Metal Oxide	AA
R3415	VRS-CZ1JF301J		300 1/16W Metal Oxide	AB
R3416	VRS-CZ1JF222J		2.2k 1/16W Metal Oxide	AA
R3417	VRS-CZ1JF391J		390 1/16W Metal Oxide	AA
R3420	VRK-SA1JF102J		1k 1/16W Metal Composition	AB
R3421	VRK-SA1JF152J		1.5k 1/16W Metal Composition	AB
R3423	VRS-CZ1JF4R7J		4.7 1/16W Metal Oxide	AA
R3427	VRK-SA1JF182J		1.8k 1/16W Metal Composition	AC
R3430	VRK-SA1JF103J		10k 1/16W Metal Composition	AB
R3431	VRS-CZ1JF333J		33k 1/16W Metal Oxide	AA
R3432	VRS-CZ1JF333J		33k 1/16W Metal Oxide	AA
R3434	VRK-SA1JF102J		1k 1/16W Metal Composition	AB
R3435	VRK-SA1JF182J		1.8k 1/16W Metal Composition	AC
R3437	VRK-SA1JF182J		1.8k 1/16W Metal Composition	AC
R3439	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R3440	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R3441	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R3452	VRS-CZ1JF561J		560 1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code
R3455	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R3458	VRS-CZ1JF121J		120 1/16W Metal Oxide	AA
R3463	VRS-CZ1JF112J		1.1k 1/16W Metal Oxide	AA
R3464	VRS-CZ1JF391J		390 1/16W Metal Oxide	AA
R3465	VRS-CZ1JF332J		3.3k 1/16W Metal Oxide	AA
R3466	VRS-CZ1JF181J		180 1/16W Metal Oxide	AA
R3467	VRS-CZ1JF271J		270 1/16W Metal Oxide	AA
R3468	VRS-CZ1JF151J		150 1/16W Metal Oxide	AA
R3469	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R3470	VRS-CZ1JF221J		220 1/16W Metal Oxide	AA
R3480	VRS-CZ1JF221J		220 1/16W Metal Oxide	AA
R3481	VRS-CZ1JF561J		560 1/16W Metal Oxide	AA
R3482	VRS-CZ1JF181J		180 1/16W Metal Oxide	AA
R3484	VRS-CZ1JF151J		150 1/16W Metal Oxide	AA
R3486	VRS-CZ1JF151J		150 1/16W Metal Oxide	AA
R3488	VRS-CZ1JF221J		220 1/16W Metal Oxide	AA
R3489	VRS-CZ1JF391J		390 1/16W Metal Oxide	AA
R3491	VRS-CZ1JF100J		10 1/16W Metal Oxide	AA
R3492	VRS-CZ1JF332J		3.3k 1/16W Metal Oxide	AA
R3493	VRS-CZ1JF220J		22 1/16W Metal Oxide	AA
R3494	VRS-CZ1JF332J		3.3k 1/16W Metal Oxide	AA
R3495	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R3496	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R7401	VRS-CZ1JF561J		560 1/16W Metal Oxide	AA
R7402	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R7403	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R7405	VRS-CZ1JF821J		820 1/16W Metal Oxide	AA
R7406	VRS-CZ1JF105J		1M 1/16W Metal Oxide	AA
R7407	VRS-CZ1JF334J		330k 1/16W Metal Oxide	AA
R7409	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R7410	VRS-CZ1JF821J		820 1/16W Metal Oxide	AA
R7411	VRS-CZ1JF472D		4.7k 1/16W Metal Oxide	AB
R7412	VRS-CZ1JF472D		4.7k 1/16W Metal Oxide	AB
R7413	VRS-CZ1JF101D		100 1/16W Metal Oxide	AA
R7414	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R7415	VRS-CZ1JF101D		100 1/16W Metal Oxide	AA
R7416	VRS-CZ1JF561J		560 1/16W Metal Oxide	AA
R7417	VRS-CZ1JF152J		1.5k 1/16W Metal Oxide	AA
R7418	VRS-CZ1JF560D		56 1/16W Metal Oxide	AB
R7419	VRS-CZ1JF560D		56 1/16W Metal Oxide	AB
R7420	VRS-CZ1JF560D		56 1/16W Metal Oxide	AB
R7421	VRS-CZ1JF560D		56 1/16W Metal Oxide	AB
R7422	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R7423	VRS-CZ1JF560D		56 1/16W Metal Oxide	AB
R7424	VRS-CZ1JF560D		56 1/16W Metal Oxide	AB
R7425	VRS-CZ1JF560D		56 1/16W Metal Oxide	AB
R7426	VRS-CZ1JF101J		100 1/16W Metal Oxide	AA
R7427	VRS-CZ1JF301D		300 1/16W Metal Oxide	AA
R7428	VRS-CZ1JF472D		4.7k 1/16W Metal Oxide	AB
R7429	VRS-CZ1JF560D		56 1/16W Metal Oxide	AB
R7430	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R7701	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R7702	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R7703	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R7704	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R7705	VRS-CZ1JF563J		56k 1/16W Metal Oxide	AA
R7706	VRS-CZ1JF223J		22k 1/16W Metal Oxide	AA
R7707	VRS-CZ1JF683J		68k 1/16W Metal Oxide	AA
R7708	VRS-CZ1JF823J		82k 1/16W Metal Oxide	AA
R7709	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R7710	VRK-SB1FF102J		1k 0.0315W Metal Composition	AC
R7711	VRK-SB1FF104J		100k 0.0315W Metal Composition	AD
R7712	VRK-SA1JF103J		10k 1/16W Metal Composition	AB
R7713	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R8800	VRS-CZ1JF103D		10k 1/16W Metal Oxide	AB
R8801	VRS-CZ1JF123J		12k 1/16W Metal Oxide	AA
R8802	VRS-CZ1JF153D		15k 1/16W Metal Oxide	AB
R8803	VRS-CZ1JF272J		2.7k 1/16W Metal Oxide	AA
R8804	VRS-CZ1JF153J		15k 1/16W Metal Oxide	AA
R8805	VRS-CZ1JF823D		82k 1/16W Metal Oxide	AB
R8806	VRS-CZ1JF751J		750 1/16W Metal Oxide	AA
R8808	VRK-SB1FF222J		2.2k 0.0315W Metal Composition	AB
R8812	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R8813	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R8814	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R8815	VRS-CZ1JF333J		33k 1/16W Metal Oxide	AA
R8816	VRS-CZ1JF222J		2.2k 1/16W Metal Oxide	AA
R8817	VRS-CZ1JF223J		22k 1/16W Metal Oxide	AA
R8818	VRS-CZ1JF274D		270k 1/16W Metal Oxide	AB
R8819	VRS-CZ1JF153D		15k 1/16W Metal Oxide	AB
R8822	VRK-SB1FF100J		10 0.0315W Metal Composition	AC
R8823	VRK-SA1JF100J		10 1/16W Metal Composition	AB
R8824	VRK-SA1JF100J		10 1/16W Metal Composition	AB
R8825	VRS-CZ1JF100J		10 1/16W Metal Oxide	AA
R8826	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R8827	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R8833	VRK-SA1JF564J		560k 1/16W Metal Composition	AC
R8835	VRS-CZ1JF222J		2.2k 1/16W Metal Oxide	AA
R8836	VRS-CZ1JF100J		10 1/16W Metal Oxide	AA
R8837	VRS-CZ1JF100J		10 1/16W Metal Oxide	AA
R9804	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA

MISCELLANEOUS PARTS

FB1901	RBLN-0119TAZZ	Balun, BLN-0119TA	AC
FB2401	RBLN-0120TAZZ	Balun, BLN-0120TA	AC
FB2402	RBLN-0120TAZZ	Balun, BLN-0120TA	AC
FB2403	RBLN-0120TAZZ	Balun, BLN-0120TA	AC
FB2404	RBLN-0120TAZZ	Balun, BLN-0120TA	AC
FB2405	RBLN-0120TAZZ	Balun, BLN-0120TA	AC
FB7401	RBLN-0057TAZZ	Balun, BLN-0057TA	AC
FB7402	RBLN-0057TAZZ	Balun, BLN-0057TA	AC
FB8801	RBLN-0120TAZZ	Balun, BLN-0120TA	AC
FB9801	RBLN-0120TAZZ	Balun, BLN-0120TA	AC
J2401	QJAKE0065TAZZ	Jack, 10pin	AH
J7401	QJAKZ0068TAZZ	Jack, 4pin	AG
P1901	QCNCM9087TAZZ	Plug, 90pin	AR
P2402	QPLGN0276TAZZ	Plug, 2pin	AD
SC2401	QSOCN2806TAN1	Socket, 28pin	AG
SC2402	QSOCN5111TAN1	Socket, 51pin	AH
SC2403	QCNCW9188TAZZ	Socket, 100pin	AL
SC3301	QCNCW8080TAZZ	Socket, 80pin	AH
SC8800	QSOCN2092TAZZ	Socket, 20pin	AE

DUNTK2873QA02 CAMERA HEAD PWB UNIT

INTEGRATED CIRCUITS

IC1	VHiLZ2383SM-1	CCD IMAGER	BN
IC12	VHiLR38610/-1	TIMING GENERATOR	AP
IC13	VHiUPD16510-1	V-DRIVER	AR
IC101	VHiCXA2096N-1	CDS/AGC	AQ
IC501	VHiMB8346BV-1	D/A CONVERTER	AN
IC551	VHiMM1449XQ-1	LENS DRIVER	AT
IC552	VHiNJM2902V-1	IRIS DRIVE	AD
IC553	VHiNJM3414V-1	IRIS DRIVE	AF

TRANSISTORS

Q1	VS2SK508///-1	2SK508	AE
Q2	VS2SC4627CD-1	2SC4627CD	AB
Q11	VS2PC4617R/-1	2PC4617R	AB
Q12	VSXP6501///-1	XP6501	AB
Q551	VSDTA114TE/-1	DTA114TE	AA

DIODE

D551	VHDDA121///-1	Diode, DDA121	AA

PACKAGED CIRCUIT

X11	RCRSZ0055TAZZ	Crystal	AS

Ref. No.	Part No.	★	Description	Code
	FILTER AND COILS			
	PFiLW0076TAZZ		Filter	AP
L12	VPAWM100K1R5N		Peaking 10µH	AC
L101	VPAWM100K1R5N		Peaking 10µH	AC
L551	VPBWM150K1R0N		Peaking 15µH	AC
	CAPACITORS			
C1	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C2	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C3	VCSATE1VJ335M		3.3 35V Tantalum	AD
C4	VCKYCZ1HB102K		1000p 50V Ceramic	AB
C5	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C7	VCKYTV1EB104K		0.1 25V Ceramic	AB
C12	VCSATA1AJ106M		10 10V Tantalum	AC
C13	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C14	VCSATA1AJ106M		10 10V Tantalum	AC
C15	VCSATE1VJ335M		3.3 35V Tantalum	AD
C16	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C17	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C18	VCSATA1DJ475M		4.7 20V Tantalum	AC
C19	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C20	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C21	VCSATA0JJ156M		15 6.3V Tantalum	AC
C22	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C23	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C24	VCSATE1VJ335M		3.3 35V Tantalum	AD
C26	VCKYCZ1HB102K		1000p 50V Ceramic	AB
C27	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C28	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C29	VCSAPR0JJ106M		10 6.3V Tantalum	AD
C31	VCSATE1DJ106M		10 20V Tantalum	AD
C34	VCSATE1VJ335M		3.3 35V Tantalum	AD
C35	VCKYCY1EF104Z		0.1 25V Ceramic	AA
C36	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C102	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C103	VCKYCZ1EF223Z		0.022 25V Ceramic	AB
C104	VCKYTV1CB105K		1 16V Ceramic	AC
C105	VCKYTV1CB105K		1 16V Ceramic	AC
C106	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C107	VCSATA0JJ156M		15 6.3V Tantalum	AC
C108	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C109	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C110	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C111	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C112	VCSAPR0JJ106M		10 6.3V Tantalum	AD
C113	VCSAPR0JJ106M		10 6.3V Tantalum	AD
C501	VCSATA1AJ106M		10 10V Tantalum	AC
C551	VCSATA1CJ106M		10 16V Tantalum	AD
C552	VCKYCZ1EB472K		4700p 25V Ceramic	AB
C553	VCKYCY1EB183K		0.018 25V Ceramic	AA
C554	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C555	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C556	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C557	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C558	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C559	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C560	VCKYCY0JF105Z		1 6.3V Ceramic	AB
C561	VCKYCZ1EB472K		4700p 25V Ceramic	AB
C562	VCKYCZ1EB472K		4700p 25V Ceramic	AB
C563	VCKYCZ1EB472K		4700p 25V Ceramic	AB
C565	VCSATA1AJ106M		10 10V Tantalum	AC
C566	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C567	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C568	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C569	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C570	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C571	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C572	VCCCCZ1HH151J		150p 50V Ceramic	AB
C573	VCKYCY1CF224Z		0.22 16V Ceramic	AA
C574	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
	RESISTORS			
R2	VRS-CZ1JF101J		100 1/16W Metal Oxide	AA
R3	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R4	VRS-CZ1JF222J		2.2k 1/16W Metal Oxide	AA
R5	VRS-CZ1JF105J		1M 1/16W Metal Oxide	AA
R6	VRS-CZ1JF105J		1M 1/16W Metal Oxide	AA
R11	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R12	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R13	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R14	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R15	VRS-CZ1JF220J		22 1/16W Metal Oxide	AA
R16	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R17	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R18	VRS-CZ1JF152J		1.5k 1/16W Metal Oxide	AA
R19	VRS-CZ1JF183J		18k 1/16W Metal Oxide	AA
R20	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R21	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R23	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R24	VRS-CZ1JF822J		8.2k 1/16W Metal Oxide	AA
R25	VRS-CZ1JF181J		180 1/16W Metal Oxide	AA
R26	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R27	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R28	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R32	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R101	VRS-CZ1JF153D		15k 1/16W Metal Oxide	AB
R103	VRS-CZ1JF244D		240k 1/16W Metal Oxide	AA
R106	VRS-CZ1JF223J		22k 1/16W Metal Oxide	AA
R107	VRS-CZ1JF182J		1.8k 1/16W Metal Oxide	AA
R108	VRS-CZ1JF182J		1.8k 1/16W Metal Oxide	AA
R109	VRS-CZ1JF473J		47k 1/16W Metal Oxide	AA
R110	VRS-CZ1JF223J		22k 1/16W Metal Oxide	AA
R111	VRS-CZ1JF562J		5.6k 1/16W Metal Oxide	AA
R112	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R501	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R551	VRS-CZ1JF153J		15k 1/16W Metal Oxide	AA
R552	VRS-CZ1JF104D		100k 1/16W Metal Oxide	AB
R553	VRS-CZ1JF473D		47k 1/16W Metal Oxide	AB
R554	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R555	VRS-CZ1JF103D		10k 1/16W Metal Oxide	AB
R556	VRS-CZ1JF103D		10k 1/16W Metal Oxide	AB
R557	VRS-CZ1JF682J		6.8k 1/16W Metal Oxide	AA
R558	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R559	VRS-CZ1JF682J		6.8k 1/16W Metal Oxide	AA
R560	VRS-CZ1JF392J		3.9k 1/16W Metal Oxide	AA
R561	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R562	VRS-CZ1JF912J		9.1k 1/16W Metal Oxide	AB
R563	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R564	VRS-CZ1JF153J		15k 1/16W Metal Oxide	AA
R565	VRS-CZ1JF102J		1k 1/16W Metal Oxide	AA
R566	VRS-CZ1JF562J		5.6k 1/16W Metal Oxide	AA
R567	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R568	VRS-CZ1JF223J		22k 1/16W Metal Oxide	AA
R569	VRS-CZ1JF474J		470k 1/16W Metal Oxide	AA
R570	VRS-CZ1JF105J		1M 1/16W Metal Oxide	AA
R571	VRS-CZ1JF103D		10k 1/16W Metal Oxide	AB
R572	VRS-CZ1JF122J		1.2k 1/16W Metal Oxide	AA
R573	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R574	VRS-CZ1JF222J		2.2k 1/16W Metal Oxide	AA
R575	VRS-CZ1JF223J		22k 1/16W Metal Oxide	AA
R576	VRS-CZ1JF474J		470k 1/16W Metal Oxide	AA
R577	VRS-CZ1JF682J		6.8k 1/16W Metal Oxide	AA
R578	VRS-CZ1JF682J		6.8k 1/16W Metal Oxide	AA
R579	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R580	VRS-CZ1JF272D		2.7k 1/16W Metal Oxide	AB
R581	VRS-CZ1JF153D		15k 1/16W Metal Oxide	AB
R582	VRS-CZ1JF244D		240k 1/16W Metal Oxide	AA
R583	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R584	VRS-CZ1JF471J		470 1/16W Metal Oxide	AA
R585	VRS-CZ1JF271J		270 1/16W Metal Oxide	AA
	MISCELLANEOUS PARTS			
FB11	RBLN-0051TAZZ		Balun, BLN-0051TA	AC
SC501	QCNCW5068TAZZ		CONNECTOR	AG
SC551	QSOCN0203FJZZ		Socket, 24pin	AE
SW501	QSW-P0095TAZZ		Switch	AH

Ref. No.	Part No.	★	Description	Code
DUNTK2874PM01 POWER PWB UNIT				
			INTEGRATED CIRCUITS	
⚠ CP1	VHiCCP2B25/-1		CCP2B25	AD
⚠ CP2	VHiCCP2B25/-1		CCP2B25	AD
⚠ CP3	VHiCCP2B25/-1		CCP2B25	AD
IC900	VHiFA3675F/-1		FA3675F	AR
IC2702	VHiS84235F/-1		BATTERY BACKUP/SYS 3V REGULATOR	AL
IC9900	VHiMB3785V/-1		MB3785V	AQ
			TRANSISTORS	
Q902	VSCPH3106//-1		CPH3106	AD
Q905	VSCPH3106//-1		CPH3106	AD
Q908	VSCPH3209//-1		CPH3209	AD
Q909	VSCPH3106//-1		CPH3106	AD
Q911	VSCPH3106//-1		CPH3106	AD
Q912	VSCPH3106//-1		CPH3106	AD
Q913	VSCPH3106//-1		CPH3106	AD
Q914	VSCPH3106//-1		CPH3106	AD
Q915	VSCPH3106//-1		CPH3106	AD
Q916	VSCPH3109//-1		CPH3109	AD
Q2701	VS2PC4617R/-1		2PC4617R	AB
Q2710	VS2SC4116Y/-1		2SC4116Y	AB
			DIODES	
D902	VHDFS1J2E//-1		Diode, DFS1J2E	AD
D903	VHDFS1J2E//-1		Diode, DFS1J2E	AD
D906	VHDFS1J2E//-1		Diode, DFS1J2E	AD
D908	VHDFS1J3///-1		Diode, DFS1J3	AD
D909	VHDFS1J2E//-1		Diode, DFS1J2E	AD
D910	VHDFS1J2E//-1		Diode, DFS1J2E	AD
D911	VHDFS1J2E//-1		Diode, DFS1J2E	AD
D912	VHDF02J9///-1		Diode, DF02J9	AD
D913	VHDMA729///-1		Diode, DMA729	AD
D914	VHDMA729///-1		Diode, DMA729	AD
D915	VHDMA729///-1		Diode, DMA729	AD
D916	VHDF02J9///-1		Diode, DF02J9	AD
D917	VHDFS1J2E//-1		Diode, DFS1J2E	AD
D980	RH-EX0259TAZZ		Zener Diode, EX0259TA	AB
D2701	VHDMA2S111/-1		Diode, DMA2S111	AC
			COILS AND TRANSFORMER	
L900	RCiLP0263TAZZ		Coil, 4.7µH	AE
L901	RCiLP0264TAZZ		Coil, 15µH	AE
L902	VPMAN100MR50N		Peaking 10µH	AC
L905	RCiLP0263TAZZ		Coil, 4.7µH	AE
L906	RCiLP0265TAZZ		Coil, 33µH	AE
L907	VPBWM2R2MR20N		Peaking 2.2µH	AC
L910	RCiLP0263TAZZ		Coil, 4.7µH	AE
L911	RCiLP0264TAZZ		Coil, 15µH	AE
L912	VPBAM2R2M090N		Peaking 2.2µH	AC
L913	VPM6N100MR75N		Peaking 10µH	AC
L914	VPMAN100MR50N		Peaking 10µH	AC
L915	VPMAN100MR50N		Peaking 10µH	AC
L916	VPM6N100MR75N		Peaking 10µH	AC
L918	RCiLP0263TAZZ		Coil	AE
L919	RCiLP0265TAZZ		Coil, 33µH	AE
L920	RCiLP0265TAZZ		Coil, 33µH	AE
L921	RCiLP0280TAZZ		Coil, 4.7µH	AE
L922	RCiLP0264TAZZ		Coil, 15µH	AE
L924	RCiLP0264TAZZ		Coil, 15µH	AE
L925	RCiLP0263TAZZ		Coil, 4.7µH	AE
L926	RCiLP0264TAZZ		Coil, 15µH	AE
L927	VPBWM2R2MR20N		Peaking 2.2µH	AC
L928	RCiLP0283TAZZ		Coil, 33µH	AE
L929	VPBSM4R7MR40N		Peaking 4.7µH	AD
⚠ T901	RTRNZ0135TAZZ		Transformer	AF
			CAPACITORS	
C900	RC-KZ0070TAZZ		4.716V	AD
C901	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C902	VCKYCY1AF105Z		1 10V Ceramic	AC

Ref. No.	Part No.	★	Description	Code
C903	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C904	VCKYCZ1AB104K		0.1 10V Ceramic	AB
C905	VCKYCZ1AB104K		0.1 10V Ceramic	AB
C906	VCKYCZ1AB104K		0.1 10V Ceramic	AB
C907	VCCCCZ1HH101J		100p 50V Ceramic	AB
C908	VCKYCY1AF105Z		1 10V Ceramic	AC
C909	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C911	VCCCCY1HH221J		220p 50V Ceramic	AA
C913	VCKYCY1HB102K		1000p 50V Ceramic	AA
C914	VCKYCY1CB473K		0.047 16V Ceramic	AA
C915	VCKYCY1CB104K		0.1 16V Ceramic	AB
C916	VCKYCY1AF105Z		1 10V Ceramic	AC
C917	VCKYCY1AF105Z		1 10V Ceramic	AC
C918	VCKYCZ1HB102K		1000p 50V Ceramic	AB
C919	VCKYCZ1HB102K		1000p 50V Ceramic	AB
C920	VCKYCZ1HB102K		1000p 50V Ceramic	AB
C921	VCKYCZ1HB102K		1000p 50V Ceramic	AB
C922	VCKYCZ1HB102K		1000p 50V Ceramic	AB
C935	VCKYCZ1HB102K		1000p 50V Ceramic	AB
C936	VCKYCZ1HB102K		1000p 50V Ceramic	AB
C937	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C938	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C950	RC-KZ0075TAZZ		2.2 16V	AC
C951	RC-KZ0100TAZZ		4.7 10V	AD
C952	VCKYTV1AB105K		1 10V Ceramic	AD
C953	RC-KZ0075TAZZ		2.2 16V	AC
C954	RC-KZ0044TAZZ		4.7 10V	AD
C955	RC-KZ0070TAZZ		4.7 16V	AD
C956	VCKYTQ1CB105K		1 16V Ceramic	AC
C957	VCKYTQ1CB105K		1 16V Ceramic	AC
C958	RC-KZ0069TAZZ		10 16V	AE
C959	RC-KZ0058TAZZ		1 25V	AC
C960	VCKYTV1AB105K		1 10V Ceramic	AD
C961	VCKYTV1EB104K		0.1 25V Ceramic	AB
C962	VCKYTV1CF105Z		1 16V Ceramic	AB
C963	VCKYTV1CF105Z		1 16V Ceramic	AB
C964	RC-KZ0075TAZZ		2.2 10V	AC
C965	RC-KZ0044TAZZ		4.7 10V	AD
C966	RC-KZ0055TAZZ		3.3 10V	AD
C967	RC-KZ0069TAZZ		10 16V	AE
C968	RC-KZ0075TAZZ		2.2 16V	AC
C969	RC-KZ0075TAZZ		2.2 16V	AC
C970	RC-KZ0100TAZZ		4.7 6.3V	AD
C971	RC-KZ0070TAZZ		4.7 16V	AD
C972	RC-KZ0044TAZZ		4.7 10V	AD
C973	VCKYTV1AB105K		1 10V Ceramic	AD
C974	RC-KZ0037TAZZ		2.2 10V	AD
C975	RC-KZ0058TAZZ		1 2.5V	AC
C976	VCKYTV1EB104K		0.1 25V Ceramic	AB
C978	RC-KZ0075TAZZ		2.2 16V	AC
C979	RC-KZ0044TAZZ		4.7 10V	AD
C980	VCKYTV1AB105K		1 10V Ceramic	AD
C2702	VCKYCY1AF105Z		1 10V Ceramic	AC
C2703	VCKYCY1AF105Z		1 10V Ceramic	AC
C2704	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C2705	VCKYCZ1HB102K		1000p 50V Ceramic	AB
C2706	VCSAPR0JJ106M		10 6.3V Tantalum	AD
C2707	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C2708	VCKYCZ1HF103Z		0.01 50V Ceramic	AB
C9900	VCCCCZ1HH181J		180p 50V Ceramic	AB
C9901	VCKYCY1AF105Z		1 10V Ceramic	AC
C9902	VCKYCZ1AF104Z		0.1 10V Ceramic	AB
C9903	VCKYCY1AB224K		0.22 10V Ceramic	AB
C9905	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C9906	VCKYCZ1HB222K		2200p 50V Ceramic	AB
C9907	VCKYCY1CB104K		0.1 16V Ceramic	AB
C9908	VCKYCY1HB103K		0.01 50V Ceramic	AA
C9909	VCKYCZ1AB104K		0.1 10V Ceramic	AB
C9911	VCCCCZ1HH101J		100p 50V Ceramic	AB
C9914	VCKYCZ1HB471K		470p 50V Ceramic	AB
C9915	VCKYCZ1HB331K		330p 50V Ceramic	AA
C9916	VCKYCZ1HB102K		1000p 50V Ceramic	AB
C9917	VCKYCZ1CB103K		0.01 16V Ceramic	AB
C9918	VCKYCY1HB103K		0.01 50V Ceramic	AA
C9919	VCKYCZ1HB102K		1000p 50V Ceramic	AB

Ref. No.	Part No.	★	Description	Code
C9920	VCKYCZ1HB102K		1000p 50V Ceramic	AB
C9921	VCKYCZ1HB102K		1000p 50V Ceramic	AB
C9922	VCKYCZ1HB102K		1000p 50V Ceramic	AB
C9923	VCKYCZ1HB102K		1000p 50V Ceramic	AB
C9924	VCKYCZ1HB102K		1000p 50V Ceramic	AB
C9925	VCKYCZ1HB102K		1000p 50V Ceramic	AB
C9926	VCKYCZ1HB102K		1000p 50V Ceramic	AB
C9927	VCKYCY1AF105Z		1 10V Ceramic	AC
C9950	VCKYCZ1CB103K		0.01 16V Ceramic	AB
	RESISTORS			
R901	VRS-CZ1JF103D		10k 1/16W Metal Oxide	AB
R902	VRS-CZ1JF332D		3.3k 1/16W Metal Oxide	AA
R903	VRS-CZ1JF153D		15k 1/16W Metal Oxide	AB
R904	VRS-CZ1JF105J		1M 1/16W Metal Oxide	AA
R905	VRS-CZ1JF222D		2.2k 1/16W Metal Oxide	AA
R906	VRS-CZ1JF103D		10k 1/16W Metal Oxide	AB
R908	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R909	VRS-CZ1JF182D		1.8k 1/16W Metal Oxide	AB
R910	VRS-CZ1JF822D		8.2k 1/16W Metal Oxide	AA
R911	VRS-CZ1JF105J		1M 1/16W Metal Oxide	AA
R912	VRS-CZ1JF103D		10k 1/16W Metal Oxide	AB
R913	VRS-CZ1JF113D		11k 1/16W Metal Oxide	AA
R914	VRS-CZ1JF823D		82k 1/16W Metal Oxide	AB
R916	VRS-CZ1JF105J		1M 1/16W Metal Oxide	AA
R917	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R919	VRS-CZ1JF103D		10k 1/16W Metal Oxide	AB
R920	VRS-CZ1JF154D		150k 1/16W Metal Oxide	AB
R921	VRS-CZ1JF105J		1M 1/16W Metal Oxide	AA
R922	VRS-CZ1JF103D		10k 1/16W Metal Oxide	AB
R923	VRS-CZ1JF183J		18k 1/16W Metal Oxide	AA
R924	VRS-CZ1JF273J		27k 1/16W Metal Oxide	AA
R925	VRS-CZ1JF393J		39k 1/16W Metal Oxide	AA
R926	VRS-CZ1JF683J		68k 1/16W Metal Oxide	AA
R927	VRS-CZ1JF332J		3.3k 1/16W Metal Oxide	AA
R928	VRS-CZ1JF472J		4.7k 1/16W Metal Oxide	AA
R929	VRS-CZ1JF562J		5.6k 1/16W Metal Oxide	AA
R930	VRS-CZ1JF822J		8.2k 1/16W Metal Oxide	AA
R931	VRS-CZ1JF153J		15k 1/16W Metal Oxide	AA
R932	VRS-CZ1JF273J		27k 1/16W Metal Oxide	AA
R933	VRS-CZ1JF561J		560 1/16W Metal Oxide	AA
R934	VRS-CZ1JF561J		560 1/16W Metal Oxide	AA
R935	VRS-CZ1JF561J		560 1/16W Metal Oxide	AA
R936	VRS-CZ1JF561J		560 1/16W Metal Oxide	AA
R965	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R966	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R971	VRS-CZ1JF333J		33k 1/16W Metal Oxide	AA
R979	VRS-TV1JD821J		820 1/16W Metal Oxide	AA
R985	VRS-CZ1JF105J		1M 1/16W Metal Oxide	AA
R986	VRS-CZ1JF473D		47k 1/16W Metal Oxide	AB
R987	VRS-CZ1JF473D		47k 1/16W Metal Oxide	AB
R988	VRS-CZ1JF824J		820k 1/16W Metal Oxide	AA
R990	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R991	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R992	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R993	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R994	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R995	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R999	VRS-TV1JD821J		820 1/16W Metal Oxide	AA
R2705	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R2707	VRS-CZ1JF392J		3.9k 1/16W Metal Oxide	AA
R2710	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R2711	VRS-CZ1JF122J		1.2k 1/16W Metal Oxide	AA
R2712	VRS-CZ1JF334J		330k 1/16W Metal Oxide	AA
R2713	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R2721	VRS-CZ1JF104D		100k 1/16W Metal Oxide	AB
R2722	VRS-CZ1JF433D		43k 1/16W Metal Oxide	AA
R2730	VRS-CZ1JF563J		56k 1/16W Metal Oxide	AA
R9904	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R9906	VRS-CZ1JF912D		9.1k 1/16W Metal Oxide	AA
R9907	VRS-CZ1JF103D		10k 1/16W Metal Oxide	AB
R9908	VRS-CZ1JF273D		27k 1/16W Metal Oxide	AA
R9909	VRS-CZ1JF000J		0 1/16W Metal Oxide	AA
R9911	VRS-CZ1JF332D		3.3k 1/16W Metal Oxide	AA
R9912	VRS-CZ1JF103D		10k 1/16W Metal Oxide	AB
R9914	VRS-CZ1JF103D		10k 1/16W Metal Oxide	AB
R9915	VRS-CZ1JF133D		13k 1/16W Metal Oxide	AA
R9916	VRS-CZ1JF103D		10k 1/16W Metal Oxide	AB
R9917	VRS-CZ1JF393D		39k 1/16W Metal Oxide	AB
R9918	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R9919	VRS-CZ1JF105J		1M 1/16W Metal Oxide	AA
R9920	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R9921	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R9922	VRS-CZ1JF272D		2.7k 1/16W Metal Oxide	AB
R9923	VRS-CZ1JF273D		27k 1/16W Metal Oxide	AA
R9924	VRS-CZ1JF203D		20k 1/16W Metal Oxide	AA
R9925	VRS-CZ1JF103D		10k 1/16W Metal Oxide	AB
R9926	VRS-CZ1JF222D		2.2k 1/16W Metal Oxide	AA
R9927	VRS-CZ1JF153D		15k 1/16W Metal Oxide	AB
R9928	VRS-CZ1JF103D		10k 1/16W Metal Oxide	AB
R9929	VRS-CZ1JF103D		10k 1/16W Metal Oxide	AB
R9930	VRS-CZ1JF103D		10k 1/16W Metal Oxide	AB
R9931	VRS-CZ1JF105J		1M 1/16W Metal Oxide	AA
R9932	VRS-CZ1JF105J		1M 1/16W Metal Oxide	AA
R9933	VRS-CZ1JF103D		10k 1/16W Metal Oxide	AB
R9934	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R9935	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R9941	VRS-TV1JD561J		560 1/16W Metal Oxide	AA
R9942	VRS-TV1JD561J		560 1/16W Metal Oxide	AA
R9943	VRS-TV1JD561J		560 1/16W Metal Oxide	AA
R9944	VRS-TV1JD561J		560 1/16W Metal Oxide	AA
	MISCELLANEOUS PARTS			
	PSLDM9140TAZZ		Shield	AC
SC901	QCNCW9085TAZZ		Socket, 90pin	AN
SC2701	QCNCW2080TAZZ		Socket, 20pin	AF
SC2702	QSOCN1092TAZZ		Socket, 10pin	AD

DUNTK2875QA02 LCD PWB UNIT

	INTEGRATED CIRCUITS		
IC800	VHiMB8346BV-1	DAC	AN
IC801	VHiM24C02W6-1	E^2PROM	AF
IC802	VHiiR3Y29AM-1	LCD DECODER	AV
IC1800	VHiNJM2107F-1	AFC LPF	AE
IC1801	VHiNJM4565V-1	COMNON AMP	AF
IC1802	VHiLZ9GH23/-1	LCD CONTROLLER	AP
	TRANSISTORS		
Q800	VS2PA1774R/-1	2PA1774R	AB
Q801	VS2PA1774R/-1	2PA1774R	AB
Q1800	VSUPUMZ1///-1	UPUMZ1	AC
Q5801	VSUPUMZ1///-1	UPUMZ1	AC
Q5802	VSCPH3209//-1	CPH3209	AD
Q5803	VSCPH3209//-1	CPH3209	AD
	DIODES		
D800	VHDHVU17TRF-1	Diode, DHVU17TRF	AE
D801	VHDMA132K//-1	Diode, DMA132K	AA
D1800	VHDHVC359TR-1	Diode, DHVC359TR	AD
D1801	RH-EX0189TAZZ	Zener Diode, EX0189TA	AC
D1802	RH-EX0269TAZZ	Zener Diode, EX0269TA	AB
	PACKAGED CIRCUITS		
TH1800	VHHT1103K44-1	Thermistor	AD
X800	RCRSC0152TAZZ	Crystal	AH
	COILS AND TRANSFORMER		
L800	VPBWM470K2R6N	Peaking 47µH	AC
L801	VPBWM470K2R6N	Peaking 47µH	AC
L803	VPD9M680J8R6N	Peaking 68µH	AC
L1800	VPBSM100KR70N	Peaking 10µH	AC
L1801	VPD9M1R2JR66N	Peaking 1.2µH	AC
L1802	VPD9M100J1R7N	Peaking 10µH	AC
L1803	VPBSM100KR70N	Peaking 10µH	AC
L5800	RCiLP0226TAZZ	Coil	AE
L5801	RCiLP0287TAZZ	Coil	AD
⚠ T5800	RTRNZ0142TAZZ	Transformer	AN

CAPACITORS

Ref. No.	Part No.	★	Description	Code
C800	VCSATE1CJ226M	22 16V	Tantalum	AE
C803	VCKYCZ1AF104Z	0.1 10V	Ceramic	AB
C804	VCKYCZ1AF104Z	0.1 10V	Ceramic	AB
C806	VCKYCY0JB105K	1 6.3V	Ceramic	AC
C807	VCKYCY1CF104Z	0.1 16V	Ceramic	AA
C808	VCKYCZ1HF103Z	0.01 50V	Ceramic	AB
C809	VCKYCY0JB105K	1 6.3V	Ceramic	AC
C810	VCKYCZ1HF103Z	0.01 50V	Ceramic	AB
C811	VCKYCZ1HF103Z	0.01 50V	Ceramic	AB
C812	VCKYCZ1HF103Z	0.01 50V	Ceramic	AB
C813	VCKYCZ1HF103Z	0.01 50V	Ceramic	AB
C814	VCKYCZ1HF103Z	0.01 50V	Ceramic	AB
C815	VCKYCY0JB105K	1 6.3V	Ceramic	AC
C816	VCKYTV1AB105K	1 10V	Ceramic	AD
C817	VCKYCZ1HF103Z	0.01 50V	Ceramic	AB
C818	VCKYCZ1HF103Z	0.01 50V	Ceramic	AB
C819	VCKYCY0JB105K	1 6.3V	Ceramic	AC
C820	VCKYCZ1HF103Z	0.01 50V	Ceramic	AB
C821	VCKYCY0JB105K	1 6.3V	Ceramic	AC
C822	VCKYCZ1HF103Z	0.01 50V	Ceramic	AB
C823	VCKYCZ1HF103Z	0.01 50V	Ceramic	AB
C824	VCKYCZ1HF103Z	0.01 50V	Ceramic	AB
C825	VCCCCZ1HH6R0D	6p 50V	Ceramic	AA
C826	VCKYCZ1EB682K	6800p 25V	Ceramic	AB
C828	VCSATA1AJ335M	3.3 10V	Tantalum	AC
C830	VCKYCZ1CB103K	0.01 16V	Ceramic	AB
C831	VCKYCZ1CB103K	0.01 16V	Ceramic	AB
C832	VCKYCZ1CB103K	0.01 16V	Ceramic	AB
C833	VCCCCZ1HH390J	39p 50V	Ceramic	AB
C834	VCKYTV1CB474K	0.47 16V	Ceramic	AC
C835	VCKYCZ1HF103Z	0.01 50V	Ceramic	AB
C836	VCSATN1AJ106M	10 10V	Tantalum	AD
C837	VCCCCZ1HH560J	56p 50V	Ceramic	AB
C838	VCKYCZ1HF103Z	0.01 50V	Ceramic	AB
C839	VCKYCY0JB105K	1 6.3V	Ceramic	AC
C841	VCKYCY1CF334Z	0.33 16V	Ceramic	AA
C842	VCKYCZ1HB681K	680p 50V	Ceramic	AB
C844	VCKYCZ1HF103Z	0.01 50V	Ceramic	AB
C847	VCKYCZ1HF103Z	0.01 50V	Ceramic	AB
C848	VCKYCZ1HF103Z	0.01 50V	Ceramic	AB
C850	VCSATE1AJ336M	33 10V	Tantalum	AG
C1800	VCKYCY1CF104Z	0.1 16V	Ceramic	AA
C1801	VCSATE1AJ336M	33 10V	Tantalum	AG
C1803	VCSATE1CJ226M	22 16V	Tantalum	AE
C1804	VCKYCZ1HB561K	560p 50V	Ceramic	AC
C1805	VCKYCY1CF104Z	0.1 16V	Ceramic	AA
C1806	VCKYCZ1HB102K	1000p 50V	Ceramic	AB
C1807	VCKYCY1CF104Z	0.1 16V	Ceramic	AA
C1808	VCKYCY0JB105K	1 6.3V	Ceramic	AC
C1809	VCCCCZ1HH680J	68p 50V	Ceramic	AB
C1810	VCCCCZ1HH8R0D	8p 50V	Ceramic	AB
C1811	VCCCCZ1HH220J	22p 50V	Ceramic	AB
C1812	VCKYCZ1HB102K	1000p 50V	Ceramic	AB
C1813	VCKYTV1CB105K	1 16V	Ceramic	AC
C1814	VCCCCZ1HH560J	56p 50V	Ceramic	AB
C1816	VCKYCY1CF104Z	0.1 16V	Ceramic	AA
C1817	VCKYCY0JB105K	1 6.3V	Ceramic	AC
C1818	VCSATA1DJ475M	4.7 20V	Tantalum	AC
C1819	VCKYCY1CF224Z	0.22 16V	Ceramic	AA
C1820	VCKYCY1CF104Z	0.1 16V	Ceramic	AA
C1821	VCKYCY0JB105K	1 6.3V	Ceramic	AC
C1822	VCKYCZ1HF103Z	0.01 50V	Ceramic	AB
C1824	VCCCCZ1HH101J	100p 50V	Ceramic	AB
C1825	VCKYCY1CF104Z	0.1 16V	Ceramic	AA
C1827	VCKYCY1CF104Z	0.1 16V	Ceramic	AA
C1829	VCKYCZ1HF103Z	0.01 50V	Ceramic	AB
C1830	VCKYCZ1AB104K	0.1 10V	Ceramic	AB
C5800	VCKYCZ1AF104Z	0.1 10V	Ceramic	AB
C5803	VCKYCZ1CB103K	0.01 16V	Ceramic	AB
C5804	RC-KZ0055TAZZ	3.3 10V		AD
C5806	VCKYCY1HB332K	3300p 50V	Ceramic	AA
C5809	VCFRED1HM183J	0.018 50V		AD
C5811	RC-CZ0024TAZZ	15p 2KV		AE

RESISTORS

Ref. No.	Part No.	★	Description	Code
R800	VRS-CZ1JF000J	0 1/16W	Metal Oxide	AA
R801	VRS-CZ1JF304D	300k 1/16W	Metal Oxide	AA
R802	VRS-CZ1JF823J	82k 1/16W	Metal Oxide	AA
R803	VRS-CZ1JF823J	82k 1/16W	Metal Oxide	AA
R805	VRS-CZ1JF363D	36k 1/16W	Metal Oxide	AA
R806	VRS-CZ1JF563D	56k 1/16W	Metal Oxide	AA
R807	VRS-CZ1JF473D	47k 1/16W	Metal Oxide	AB
R808	VRS-CZ1JF393D	39k 1/16W	Metal Oxide	AB
R811	VRS-CZ1JF392J	3.9k 1/16W	Metal Oxide	AA
R813	VRS-CZ1JF563D	56k 1/16W	Metal Oxide	AA
R814	VRS-CZ1JF153D	15k 1/16W	Metal Oxide	AB
R815	VRS-CZ1JF333D	33k 1/16W	Metal Oxide	AB
R816	VRS-CZ1JF273D	27k 1/16W	Metal Oxide	AA
R821	VRS-CZ1JF105J	1M 1/16W	Metal Oxide	AA
R822	VRS-CZ1JF124D	120k 1/16W	Metal Oxide	AA
R824	VRS-CZ1JF223D	22k 1/16W	Metal Oxide	AB
R825	VRS-CZ1JF163D	16k 1/16W	Metal Oxide	AA
R827	VRS-CZ1JF122D	1.2k 1/16W	Metal Oxide	AB
R829	VRS-CZ1JF183D	18k 1/16W	Metal Oxide	AB
R832	VRS-CZ1JF184J	180k 1/16W	Metal Oxide	AA
R835	VRS-CZ1JF334J	330k 1/16W	Metal Oxide	AA
R838	VRS-CZ1JF562D	5.6k 1/16W	Metal Oxide	AB
R841	VRS-CZ1JF273D	27k 1/16W	Metal Oxide	AA
R842	VRS-CZ1JF562J	5.6k 1/16W	Metal Oxide	AA
R843	VRS-CZ1JF393D	39k 1/16W	Metal Oxide	AB
R844	VRS-CZ1JF822J	8.2k 1/16W	Metal Oxide	AA
R845	VRS-CZ1JF223D	22k 1/16W	Metal Oxide	AB
R846	VRS-CZ1JF000J	0 1/16W	Metal Oxide	AA
R847	VRS-CZ1JF105J	1M 1/16W	Metal Oxide	AA
R849	VRS-CY1JF106J	10M 1/16W	Metal Oxide	AA
R850	VRS-CZ1JF274J	270k 1/16W	Metal Oxide	AA
R852	VRS-CZ1JF363D	36k 1/16W	Metal Oxide	AA
R853	VRS-CZ1JF563J	56k 1/16W	Metal Oxide	AA
R854	VRS-CZ1JF000J	0 1/16W	Metal Oxide	AA
R855	VRS-CZ1JF104J	100k 1/16W	Metal Oxide	AA
R857	VRS-CZ1JF273J	27k 1/16W	Metal Oxide	AA
R858	VRS-CZ1JF393D	39k 1/16W	Metal Oxide	AB
R859	VRS-CZ1JF683D	68k 1/16W	Metal Oxide	AB
R860	VRS-CZ1JF563J	56k 1/16W	Metal Oxide	AA
R861	VRS-CZ1JF000J	0 1/16W	Metal Oxide	AA
R862	VRS-CZ1JF000J	0 1/16W	Metal Oxide	AA
R870	VRS-CZ1JF182J	1.8k 1/16W	Metal Oxide	AA
R871	VRS-CZ1JF332J	3.3k 1/16W	Metal Oxide	AA
R1800	VRS-CZ1JF562D	5.6k 1/16W	Metal Oxide	AB
R1801	VRS-CZ1JF223J	22k 1/16W	Metal Oxide	AA
R1802	VRS-CZ1JF473J	47k 1/16W	Metal Oxide	AA
R1803	VRS-CZ1JF472J	4.7k 1/16W	Metal Oxide	AA
R1804	VRS-CZ1JF472J	4.7k 1/16W	Metal Oxide	AA
R1805	VRS-CZ1JF683J	68k 1/16W	Metal Oxide	AA
R1806	VRS-CZ1JF561J	560 1/16W	Metal Oxide	AA
R1807	VRS-CZ1JF561J	560 1/16W	Metal Oxide	AA
R1808	VRS-CZ1JF272D	2.7k 1/16W	Metal Oxide	AB
R1809	VRS-CZ1JF105J	1M 1/16W	Metal Oxide	AA
R1810	VRS-CZ1JF683J	68k 1/16W	Metal Oxide	AA
R1812	VRS-CZ1JF223J	22k 1/16W	Metal Oxide	AA
R1813	VRS-CZ1JF103J	10k 1/16W	Metal Oxide	AA
R1814	VRS-CZ1JF564J	560k 1/16W	Metal Oxide	AA
R1815	VRS-CZ1JF564J	560k 1/16W	Metal Oxide	AA
R1816	VRS-CZ1JF470J	47 1/16W	Metal Oxide	AA
R1817	VRS-CZ1JF105J	1M 1/16W	Metal Oxide	AA
R1818	VRS-CZ1JF471J	470 1/16W	Metal Oxide	AA
R1819	VRS-CZ1JF273D	27k 1/16W	Metal Oxide	AA
R1822	VRS-CZ1JF821J	820 1/16W	Metal Oxide	AA
R1823	VRS-CZ1JF561J	560 1/16W	Metal Oxide	AA
R1824	VRS-CZ1JF561J	560 1/16W	Metal Oxide	AA
R1826	VRS-CZ1JF393J	39k 1/16W	Metal Oxide	AA
R1827	VRS-CZ1JF393J	39k 1/16W	Metal Oxide	AA
R1828	VRS-CZ1JF104D	100k 1/16W	Metal Oxide	AB
R1830	VRS-CZ1JF471J	470 1/16W	Metal Oxide	AA
R1832	VRS-CZ1JF102J	1k 1/16W	Metal Oxide	AA
R1835	VRS-CZ1JF000J	0 1/16W	Metal Oxide	AA
R1836	VRS-CZ1JF103D	10k 1/16W	Metal Oxide	AB
R1837	VRS-CZ1JF000J	0 1/16W	Metal Oxide	AA
R1838	VRS-CZ1JF153J	15k 1/16W	Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code
R1840	VRS-CZ1JF393J		39k 1/16W Metal Oxide	AA
R1841	VRS-CZ1JF474J		470k 1/16W Metal Oxide	AA
R1842	VRS-CZ1JF104J		100k 1/16W Metal Oxide	AA
R1843	VRS-CZ1JF512J		5.1k 1/16W Metal Oxide	AB
R1844	VRS-CZ1JF224J		220k 1/16W Metal Oxide	AA
R1845	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R1846	VRS-CZ1JF363D		36k 1/16W Metal Oxide	AA
R1847	VRS-CZ1JF564J		560k 1/16W Metal Oxide	AA
R1848	VRS-CZ1JF124J		120k 1/16W Metal Oxide	AA
R1849	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R1850	VRS-CZ1JF333J		33k 1/16W Metal Oxide	AA
R1854	VRS-CZ1JF273D		27k 1/16W Metal Oxide	AA
R1855	VRS-CZ1JF183D		18k 1/16W Metal Oxide	AB
R1856	VRS-CZ1JF100J		10 1/16W Metal Oxide	AA
R1857	VRS-CZ1JF471J		470 1/16W Metal Oxide	AA
R1858	VRS-CZ1JF561J		560 1/16W Metal Oxide	AA
R1859	VRS-CZ1JF331J		330 1/16W Metal Oxide	AA
R5803	VRS-CZ1JF103D		10k 1/16W Metal Oxide	AB
R5807	VRS-CZ1JF103J		10k 1/16W Metal Oxide	AA
R5808	VRS-CZ1JF182D		1.8k 1/16W Metal Oxide	AB
R5810	VRS-CZ1JF152J		1.5k 1/16W Metal Oxide	AA
R5811	VRS-CZ1JF152J		1.5k 1/16W Metal Oxide	AA
R5812	VRS-CZ1JF271D		270 1/16W Metal Oxide	AB
R5813	VRS-CZ1JF271D		270 1/16W Metal Oxide	AB

MISCELLANEOUS PARTS

SC800	QSOCN1092TAZZ	Socket	AD
SC801	QSOCN1092TAZZ	Socket	AD
SC802	QSOCN1092TAZZ	Socket	AD
SC1800	QSOCN2492TAZZ	Socket, 24pin	AE
SC5800	QSOCN0412TAN1	Socket, 4pin	AF

RAMP-0028TAN1 HEAD AMP UNIT

INTEGRATED CIRCUITS

IC301	VHiBH7275KV-1	H/A IC	AU
IC302	VHiS24C04A/-1	E^2PROM	AL
	or		
	VHiXL24C04F-1		AK
	or		
	VHiST25C4M6-1		AL

TRANSISTORS

Q302	VS2SC4738Y/-1	Transistor	AA
	or		
	VS2SC4617B/-1	Transistor	AA
Q303	VS2SC4738Y/-1	Transistor	AA
	or		
	VS2SC4617B/-1	Transistor	AA

COILS

L301	VPAWM4R7MR70N	4.7µH	AC
L303	VPAWM4R7MR70N	4.7µH	AC

CAPACITORS

C301	VCKYCZ1HB102K	1000p	50V	Ceramic	AB
C302	VCKYCZ1HF103Z	0.01	50V	Ceramic	AB
C303	VCSATE1AJ336M	33	10V	Tantalum	AG
C304	VCKYCZ1AF104Z	0.1	10V	Ceramic	AB
C305	VCCCCY1HH331J	330p	50V	Ceramic	AA
C306	VCKYCZ1HB102K	1000p	50V	Ceramic	AB
C307	VCCCCY1HH331J	330p	50V	Ceramic	AA
C308	VCKYCZ1AF104Z	0.1	10V	Ceramic	AB
C309	VCKYCZ1HB102K	1000p	50V	Ceramic	AB
C310	VCKYCY1AF105Z	1	10V	Ceramic	AC
C311	VCKYCZ1HF103Z	0.01	50V	Ceramic	AB
C312	VCKYCZ1HB102K	1000p	50V	Ceramic	AB
C313	VCKYCZ1HB102K	1000p	50V	Ceramic	AB
C314	VCKYCZ1AF104Z	0.1	10V	Ceramic	AB
C315	VCKYCZ1HB102K	1000p	50V	Ceramic	AB
C318	VCKYCZ1HB102K	1000p	50V	Ceramic	AB
C319	VCKYCZ1AF104Z	0.1	10V	Ceramic	AB
C320	VCKYCZ1AF104Z	0.1	10V	Ceramic	AB
C321	VCKYCZ1HB102K	1000p	50V	Ceramic	AB
C322	VCKYCY0JB105K	1	22V	Ceramic	AC
C323	VCKYCZ1HB102K	1000p	50V	Ceramic	AB
C324	VCKYCZ1HF103Z	0.01	50V	Ceramic	AB
C325	VCSATE1AJ336M	33	10V	Tantalum	AG
C326	VCCCCZ1HH101J	100p	50V	Ceramic	AB
C327	VCKYCZ1EB472K	4700P	25V	Ceramic	AB
C329	VCSATA1AJ106M	10	10V	Tantalum	AC
C330	VCKYCZ1HF103Z	0.01	50V	Ceramic	AB
C331	VCKYCZ1AF104Z	0.1	10V	Ceramic	AB
C332	VCKYCZ1EB472K	4700p	25V	Ceramic	AB
C333	VCKYCZ1CB822K	8200p	16V	Ceramic	AB
C340	VCCCCZ1HH5R0C	5p	50V	Ceramic	AC
C342	VCCCCZ1HH5R0C	5p	50V	Ceramic	AC
C343	VCKYCZ1AF104Z	0.1	10V	Ceramic	AB
C344	VCKYCZ1AF104Z	0.1	10V	Ceramic	AB
C345	VCKYCZ1AF104Z	0.1	10V	Ceramic	AB

RESISTORS

R304	VRS-CZ1JF222J	2.2k	1/16W Metal Oxide	AA
R308	VRS-CZ1JF122J	1.2k	1/16W Metal Oxide	AA
R309	VRS-CZ1JF392J	3.9k	1/16W Metal Oxide	AA
R310	VRS-CZ1JF433J	43k	1/16W Metal Oxide	AA
R311	VRS-CZ1JF101J	100	1/16W Metal Oxide	AA
R312	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R313	VRS-CZ1JF153J	15k	1/16W Metal Oxide	AA
R314	VRS-CZ1JF101J	100	1/16W Metal Oxide	AA
R315	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R316	VRS-CZ1JF823J	82k	1/16W Metal Oxide	AA
R317	VRS-CZ1JF563J	56k	1/16W Metal Oxide	AA
R318	VRS-CZ1JF563J	56k	1/16W Metal Oxide	AA
R319	VRS-CZ1JF182J	1.8k	1/16W Metal Oxide	AA
R320	VRS-CZ1JF182J	1.8k	1/16W Metal Oxide	AA
R321	VRS-CZ1JF682J	6.8k	1/16W Metal Oxide	AA
R323	VRS-CZ1JF123J	12k	1/16W Metal Oxide	AA
R324	VRS-CZ1JF222J	2.2k	1/16W Metal Oxide	AA
R325	VRS-CZ1JF472J	4.7k	1/16W Metal Oxide	AA
R327	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R328	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R330	VRS-CZ1JF563J	56k	1/16W Metal Oxide	AA
R332	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R333	VRS-CZ1JF222J	2.2k	1/16W Metal Oxide	AA
R376	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R377	VRS-CZ1JF101J	100	1/16W Metal Oxide	AA
R380	VRS-TV1JD100J	10k	1/16W Metal Oxide	AA

CONNECTORS

P306	QCNCM8082TAZZ	(B TO B) 80pin	AK
SC301	QSOCN0806TAN1	(L.M FPC) 8pin	AL
SC302	QSOCN0606TAN1	(MODE SW FPC) 6pin	AK
SC303	QSOCN1005TAN1	(DRUM FPC) 10pin	AF
SC304	QSOCN0705TAN1	(H/A FPC) 7pin	AK
SC305	QSOCN1887TAZZ	(MECHA SFNS FPC)18pin	AD
SC306	QSOCN1886TAZZ	(CAP M FPC) 18pin	AD

RUNTK0341TAZZ JOINT PWB UNIT

P2006	QPLGN0276TAZZ	CONNECTOR, 2pin	AD
P2009	QPLGN0276TAZZ	CONNECTOR, 2pin	AD
P2008	QPLGN0376TAZZ	CONNECTOR, 3pin	AD
P2010	QPLGN0476TAZZ	CONNECTOR, 4pin	AD
SC2001	QSOCN2887TAZZ	CONNECTOR, 28pin	AE
SC2002	QSOCN2887TAZZ	CONNECTOR, 28pin	AE
SC2003	QSOCN1087TAZZ	CONNECTOR, 10pin	AC
SC2004	QSOCN1087TAZZ	CONNECTOR, 10pin	AC
SC2005	QSOCN1087TAZZ	CONNECTOR, 10pin	AC
SC2007	QSOCN0560TAZZ	CONNECTOR, 5pin	AC
SC2011	QCNCW1481TAZZ	CONNECTOR, 14pin	AE
SW2001	QSW-M0047GEZZ	Switch	AE
	QTANS9000TAFW	Lithium Battery (+)	
	QTANS9004TAFW	Lithium Battery (-)	

MECHANISM PARTS

Ref. No.	Part No.	★	Description	Code
	DMECV0063GE08		Mechanism Ass'y(PD3H/E)	–
	DMECV0063GE09		Mechanism Ass'y(PD3S)	–
301	LCHSM0167GEZZ		Main Chassis Ass'y	AQ
302	MLEVF0501GEFW		Eject Lever	AD
303	MLEVF0502GEFW		Pinch Control Lever Ass'y	AD
304	NGERH3050GEFW		Main Cam	AD
305	MLEVF0503GEZZ		Shifter Drive Lever Ass'y	AE
306	MLEVF0505GEFW		Loading Lever Ass'y	AD
307	MARMM0130GEZZ		S Loading Arm Ass'y	AF
308	MARMM0131GEZZ		Tu Loading Arm Ass'y	AF
309	MLEVF0508GEFW		T Arm Control Lever	AD
310	MLEVF0509GEFW		AHC Control Lever	AC
311	LANGG9106GEFW		Tu Guide Cam	AD
312	LANGF9016GEZZ		Intermediate Gear ANG Ass'y	AG
313	MARMM0132GEZZ		Swing Arm Ass'y	AG
314	CANGJ0037GE01		Mechanism Fixing Angle Ass'y	AG
321	LANGQ1044GEZZ		Down SW-ANG Ass'y	AE
322	QPWBH5516GEZZ		Dew Sensor FPC	AH
323	QSW-M0016TAZZ		Down SW	AD
324	RDTCH0039GEZZ		Dew Sensor	AD
330	CCHSS0047GE01		Slide Chassis Ass'y with FPC Sensor	BC
331	LCHSS0047GEZZ		Slide Chassis Ass'y	AQ
332	CPWBH5515GE01		Sensor FPC Ass'y	AX
333	QPWBH5515GEZZ		Sensor FPC	AP
334	LHLDP1174GEZZ		S-LED Holder	AC
335	LHLDP1175GEZZ		Tu-LED Holder	AC
336	PGiDM0157GEZZ		Lid Opener	AB
337	LHLDZ2023GEZZ		Sensor FPC Guide	AB
338	QSW-M0047GEZZ		Recognition SW	AE
339	QTANZ0003GEZZ		Mic Contact	AE
340	RH-PX0180TAZZ		Cassette LED	AE
341	RH-PX0181TAZZ		S/E Sensor	AF
342	RDTCM0002TAZZ		Reel Sensor	AE
343	PSHEP0015GEZZ		Sensor FPC Reinforcing Plate	AB
351	MLEVF0510GEZZ		Tension Arm Ass'y	AG
352	MLEVF0511GEZZ		Tu Guide Arm Ass'y	AG
353	MLEVF0512GEZZ		Brake Shifter Ass'y	AE
354	LBNDK3022GEZZ		Tension Band Ass'y	AF
355	LANGA0073GEZZ		Reel Cover Ass'y	AG
356	LANGJ0038GEFW		T Spring Hanging ANG	AC
357	MLEVP0302GEZZ		Swing Arm Release Lever	AC
361	MLEVP0296GEZZ		Pinch Drive Lever	AB
362	PGiDM0156GEZZ		Guide Rail	AC
363	MLEVP0297GEZZ		AHC Ass'y	AF
364	NGERH1300GEZZ		Intermediate Gear A Ass'y	AE
365	NGERH1301GEZZ		Intermediate Gear B Ass'y	AB
366	NPLYV0164GEZZ		Intermediate Pulley Ass'y	AC
367	NPLYV0165GEZZ		Center Pulley Ass'y	AC
368	PCOVP1024GEZZ		Down SW Cover	AB
369	NGERH1302GEZZ		AHC Cam	AB
370	NGERH1303GEZZ		Coupling Gear	AB
371	NGERH1304GEZZ		Sub Cam	AC
372	NGERH1305GEZZ		S Loading Gear	AC
373	NGERH1306GEZZ		Tu Loading Gear	AC
374	MLEVP0298GEZZ		S Main Brake	AB
375	MLEVP0299GEZZ		Tu Main Brake	AB
376	LHLDX1033GEZZ		S Cassette Stay	AB
377	LHLDZ2024GEZZ		FPC Cover	AB
378	PGiDM0166GEZZ		SL Chassis Holder-S	AC
379	PGiDM0167GEZZ		Lock Lever Guide	AC
381	PGiDP0031GEFW		Tu Pole	AD
382	PGiDS0046GEFW		T Roller Upper Flange	AE
383	PGiDS0047GEFW		T Roller Bottom Flange	AE
384	NSFTL0761GEFW		T Roller Inner	AE
385	PGiDP0042GEFW		S Guide Sleeve	AD
386	PGiDM0170GEZZ		Slide Chassis Guide	AC
390	MSPRD0184GEFJ		Swing Arm Release SPR.	AC
391	MSPRT0417GEFJ		Main Brake SPR.	AB
392	MSPRT0418GEFJ		T Arm SPR.	AB
393	MSPRD0178GEFJ		Tu Guide Arm SPR.	AB
394	MSPRD0179GEFJ		Pinch Lever Return SPR.	AB
395	MSPRD0180GEFJ		S Pressure SPR.	AB
396	MSPRD0181GEFJ		Tu Pressure SPR.	AB
397	MSPRC0220GEFJ		Guide Adjustment SPR.	AA
398	MSPRC0221GEFJ		Drum Fixing SPR.	AA
399	MSPRP0185GEZZ		PB Guide SPR.	AC
401	LX-WZ1071GE02		CW ø 0.7 ø 1.8t0.1	AC
402	LX-WZ1104GE06		CW ø 0.7 ø 2.2t0.25	AB
403	LX-WZ1029GE00		CW ø 1.2 ø 3.0t0.25	AA
411	LZ-WZ1105GE00		W ø 1.2 ø 2.5t0.13	AA
412	LZ-WZ1106GE00		W ø 1.2 ø 2.5t0.2	AA
413	XWHJZ12-03025		W ø 1.2 ø 2.5t0.3	AA
414	XWHJZ12-04025		W ø 1.2 ø 2.5t0.4	AA
415	XWHJZ12-05025		W ø 1.2 ø 2.5t0.5	AA
420	LX-BZ3202GEFF		Swing Arm Release Lever Fixing Screw	AC
421	LHLDZ2025GEZZ		Intermediate Gear Stopper	AB
429	LX-BZ3203GEFF		Type 1 Minuteness Screw M1.4 x L1	AB
430	LX-BZ3185GEFN		Screw M1.4 x L2	AB
431	LX-BZ3135GEFF		Screw M1.4 x L1	AA
432	LX-BZ3201GEFF		Special Head Screw M1.4 x L2	AB
433	LX-BZ3132GEFF		Special Head Screw M1.4 x L1.5	AA
434	LX-BZ3131GEFN		Screw M1.4 x L1.6	AA
435	LX-HZ3089GEFF		S Tight Screw M1.4 x L2	AA
436	LX-HZ3076GEFF		S Tight Screw M1.4 x L3	AA
437	LX-HZ3088GEFF		L Motor Installation Screw	AB
438	LX-BZ3093GEZZ		Drum Installation Screw	AC
439	LX-BZ3181GEFN		GR Lock Screw	AD
440	LX-HZ3084GEFF		S Tight Screw M1.4 x L4	AC
441	QPWBH5517GEZZ		Mode FPC	AF
451	LPOLM0065GEZZ		Sup Pole Base Ass'y	AK
452	LPOLM0066GEZZ		Tu Pole Base Ass'y	AK
453	CGiDM0158GE01		Drum Base Ass'y	AN
454	NROLM0046GEZZ		Guide Roller Ass'y	AM
455	NROLM0045GEZZ		T Roller Ass'y	AK
456	NDAiV1076GEZZ		S Reel Base Ass'y	AM
457	NDAiV1077GEZZ		Tu Reel Base Ass'y	AK
458	MLEVF0515GEZZ		Pinch Lever Ass'y	AP
459	NBLTT0016GEZZ		Timing Belt	AD
461	RMOTM1080GEZZ		L Motor Ass'y	AQ
462	RMOTV1023GEZZ		Capstan Motor	AY
463	QSW-R0039GEZZ		Mode SW	AE
470	DDRMV0061HE01		Drum Ass'y	BZ
500	RAMP-0028TAN1		Head Amplifier PWB Unit	—
501	PSLDM3338TAFW		H/A FPC Shild Plate	AC

CASSETTE CONTROL PARTS

600	CHLDX3082GE02	Cassette Control Ass'y (PD3H/E)	
600	CHLDX3082GE03	Cassette Control Ass'y (PD3S)	
601	LHLDX3082GEZZ	Housing Ass'y	AS
604	MLEVF0524GEZZ	Top Cover Ass'y	AP
606	LANGF9617GEZZ	Side Board Ass'y	AG
607	MSPRB0001GEFJ	UP-Spring	AD
608	LX-BZ3089GEZZ	Screw M1.4 x L2	
609	PDMP-0016GEZZ	Damper	AE
610	TLABH0557GEZZ	Cassette Control Lock Label	AD
611	TLABH0556GEZZ	Cassette Control Caution Label	AD
614	ZTAPEZ211004M	FPC Shield Tape	AB
615	PMLT-0112GEZZ	Cassette Control Spacer (PD3S only)	

CABINET PARTS LIST

Ref. No.	Part No.	★	Description	Code
1-1	DCABA6201TAK2		K.S. Cabinet Ass'y	BD
1-1-2	LANGK0444TAFW		L.L. Angle	AE
1-1-3	LANGK0445TA00		Angle for Handstrap.F	AF
1-1-4	LANGK0473TA00		Angle for Handstrap.R	
1-1-5	LSTYM0031TAZZ		Stay.F.Ass'y	AQ
1-1-6	LSTYM0032TAZZ		Stay.R.Ass'y	AM
1-1-7	PSHEP0109TAZZ		Zoom FPC Guide	AC
1-1-8	PSPAG0124TA00		Floating Rubber	AC
1-1-9	UBNDT0124TASA		Handstrap	AW
1-1-11	PMLT-0180TAZZ		Sound Insulation Sheet	AA
1-2	GFTAC3006TASA		Cassette Lid	BE
1-3	HiNDP0201TASA		Cassette Lid Plate	AD
1-4	JKNBP0171TASA		Open Pinch	AD
1-5	LANGK0447TAZZ		Cassette Lid Lock Ass'y	AM
1-6	LHLDZ1488TA00		Open Button Holder	
1-7	PMLT-0172TAZZ		Cassette Lid Spacer A	AB
1-8	PMLT-0173TAZZ		Cassette Lid Spacer B	AB
1-9	PSHEP0105TAZZ		Zoom FPC Cover	AE
1-10	QSW-Z0309TAZZ		Eject Switch	AG
1-11	QSW-Z0310TAZZ		Zoom Unit	AT
1-12	TLABH0393TAZZ		Eject Caution Label	AB
1-13	LHLDZ1505TA00		Lid Lock Holder (since about 5001camcorders)	AD
2-1	DCABB6203TAK1		K.S. Cabinet B Service (PD3S/H)	
2-1	DCABB6203TAK2		K.S. Cabinet B Service (PD3E)	AY
2-1-2	JBTN-0305TASA		Menu, Gamma Button	
2-1-3	PSHEP0117TAZZ		Tilt Section Blind Sheet	AC
2-1-4	PSPAZ0262TAZZ		Rubber for LCD	AA
2-1-5	TLABH0386TAZZ		Lithium Battery Label	AC
2-2	LANGQ0209TAFW		RS232C Fixing Metal	AF
2-3	LHLDZ1489TAZZ		Speaker Holder	AD
2-4	QSW-Z0311TAZZ		Operation Button Unit	AT
2-5	QSW-Z0321TAZZ		Menu, Gamma Switch	AK
2-6	RUNTK0342TAZZ		RS232C Unit	AL
2-7	VSP0020P-A18E		Speaker Unit	AL
2-8	PCOVP9070TAZZ		Wire Cover	AC
3-1	CLNSV0008TA01		V/F Lens Unit	AM
3-2	CCOVA1596TAK2		V/F Cover UP(PD3S/H)	AR
3-2	CCOVA1596TAK4		V/F Cover UP(PD3E)	
3-2-2	TLABZ0478TAZZ		Special Merit Label C	AH
3-3	GCOVA1597TAKA		V/F Cover Low(PD3S/H)	AN
3-3	GCOVA1597TAKB		V/F Cover Low(PD3E)	
3-4	GCOVD1006TAZZ		V/F LCD Protection Cover	AH
3-5	GCOVH1240TAZZ		V/F LCD Back Cover	AD
3-6	GCOVH1242TAZZ		V/F Front Cover Unit	AM
3-7	GCOVH7067TA00		Eye Cap	AF
3-8	JKNBZ0072TASA		Visibility Control Button	AD
3-9	KLMPV0042TAZZ		V/F Back Light	BB
3-10	LANGK0443TAZZ		V/F Tilt Unit	AW
3-11	LANGK0452TAZZ		V/F Slide Angle Unit	AV
3-12	LHLDZ1497TAZZ		V/F LCD Invertor Holder	AD
3-13	MSPRP0192TAFW		Visibility Control Plate Spring	AB
3-14	PSPAG0122TAZZ		V/F LCD Spacer	AD
3-15	PSPAZ0271TAZZ		V/F Angle Sheet	AC
3-16	PSPAZ0272TAZZ		V/F Shade Sheet	AA
3-17	PSPAZ0273TAZZ		V/F FPC Sheet	AB
3-18	RLCDV0046TAZZ		V/F LCD	BP
3-19	PSPAG0123TAZZ		V/F Back Light Spacer	AD
3-20	PSPAZ0266TAZZ		V/F Invertor Holder Sheet	AA
4	CCABE6042TAK1		K.S. LCD Cabinet(PD3S/H)	AX
4	CCABE6042TAK2		K.S. LCD Cabinet(PD3E)	AX
4-2	HBDGB0053TASA		SHARP Badge	AF
4-3	JBTN-0301TASA		LCD Lock Lever	AD
4-4	LANGK0464TAFW		Plate Nut	AD
4-5	LX-HZ0072TAFF		Screw for LCD Lock (Since 2000 Camcorders)	AB
4-6	MSPRD0061TAFJ		LCD Lock Spring	AC
4-7	PSHEP0107TAZZ		Shade Sheet	AB
4-8	PZETV0403TAZZ		Insulate Tape	AA
4-9	TLABZ0474TAZZ		Special Merit Label A	AH
5	DCOVA1601TAK1		K.S. Front Cover(PD3S/H)	BB
5	DCOVA1601TAK2		K.S. Front Cover(PD3E)	
5-1-2	GCOVA1590TAZZ		R/C Catch Light Cover	
5-1-3	PFLT-0026TAZZ		Microphone Spacer	AC
5-1-4	HDECA0701TASA		Microphone Grille(PD3S/H)	AP
5-1-4	HDECA0701TASB		Microphone Grille(PD3E)	
5-1-5	HiNDP0207TASA		Terminal Plate	
5-1-6	GCOVA1591TAKA		Terminal Cover(PD3S/H)	AH
5-1-6	GCOVA1591TAKB		Terminal Cover(PD3E)	
5-1-7	HBDGB0061TASA		SHARP Badge	AG
5-1-8	HiNDP0203TASA		Lens Plate	AD
5-1-9	LHLDZ1493TAZZ		Terminal Cover Belt	
5-1-10	GCOVA3068TASA		Lens Hood	
5-1-11	PFLT-0027TAZZ		Microphone Grille Felt	AA
5-1-12	QEARP0253TAZZ		Front Cover Earth Sheet	AB
5-2	PMLT-0177TAZZ		Microphone Sound Insulation Sheet	AC
5-3	LHLDZ1491TAZZ		Microphone Holder Front	AD
5-4	LHLDZ1492TAZZ		Microphone Holder Rear	AD
5-5	RMiCC0083TAZZ		Microphone Unit	AR
5-6	PMLT-0176TAZZ		Microphone Molt	AB
5-9	PMLT-0179TAZZ		Microphone Grille Molt	AB
5-10	QEARP0256TAZZ		Front Cover Earth Sheet B	
6-1	DCOVA1600TAK1		K.S. Battery Cover Service	AZ
6-1-2	HiNDP0204TASA		Battery Plate	AD
6-1-3	JBTN-0302TASA		S/S Button	AH
6-1-4	JBTN-0303TASA		Still Button	AG
6-1-5	JBTN-0304TASA		Power Lock Button	AD
6-1-6	JKNBP0173TASA		Battery Lock Pinch	AE
6-1-7	JKNBP0174TASA		Power Lock Pinch	AG
6-1-8	LHLDZ1494TAZZ		Power Lock Button Holder	AD
6-1-9	LHLDZ1498TAZZ		Battery Lock Pinch Holder	AD
6-1-10	MLEVP0041TASA		Battery Lock	AD
6-1-11	MSPRC0121TAFJ		Battery Lock Spring	AB
6-1-12	MSPRC0122TAFJ		Power Lock Spring	AB
6-1-13	PSHEP0113TAZZ		Battery Guide Hole Cover U	AC
6-1-14	PSHEP0114TAZZ		Battery Guide Hole Cover D	AC
6-2	LANGK0472TAFW		Cover Fixing Angle	
6-3	QSW-Z0312TAZZ		Power Switch Unit	AR
6-4	QTANZ0136TAZZ		Battery Terminal Unit	AR
12	RUNTK0341TAZZ		Joint PWB Unit	AU
13	RUNTK0343TAZZ		Remote Control Receiver Unit	AM
22	GCOVA1603TAKA		LCD Front Cover	
23-1	CLNSA0135TA01		Lens Unit	BS
23-2	JKNBP0172TASA		Jog Pinch	AG
23-3	LANGK0451TAFW		Lens Setting Angle	AE
23-4	LHLDZ1490TAZZ		Jog Switch Holder	AD
24	CCOVH1241TAK3		K.S. Adjust Connection Cover(PD3S/H)	AH
24	CCOVH1241TAK4		K.S. Adjust Connection Cover(PD3E)	
24-2	PSPAZ0262TAZZ		LCD Under Rubber	AA
25	GCOVH1216TASD		Lens Cap(PD3S/H)	AL
25	GCOVH1216TASC		Lens Cap(PD3E)	AL
26	TLABM1908TAZZ		Model Label(PD3S)	AD
26	TLABM1942TAZZ		Model Label(PD3H)	
26	TLABM1943TAZZ		Model Label(PD3E)	
26	TLABM1944TAZZ		Model Label(PD3EW)	
26	TLABM1945TAZZ		Model Label(PD3EX)	
27-1	DUNTK2871PM02		Main1 PWB Unit(PD3S)	–
27-1	DUNTK2871PM03		Main1 PWB Unit(PD3H)	–
27-1	DUNTK2871PM04		Main1 PWB Unit (PD3E/EW/EX)	–
27-2	DUNTK2872PM02		Main2 PWB Unit(PD3S)	–
27-2	DUNTK2872PM03		Main2 PWB Unit(PD3H)	–
27-2	DUNTK2872PM04		Main2 PWB Unit (PD3E/EW/EX)	–
27-3	DUNTK2874PM01		Power PWB Unit	–
28	DUNTK2875QA02		LCD PWB Unit	–
29	CCOVA1602TAK1		Top Side Cover(PD3S)	
29	CCOVA1599TAK3		Top Side Cover(PD3H)	

Ref. No.	Part No.	★	Description	Code
29	CCOVA1599TAK4		Top Side Cover(PD3E)	
29-2	TLABZ0477TAZZ		Special Merit Label B	AH
30	GCOVA3069TASA		Button Cover	AT
⚠ 31	KLMPV0041TAZZ		Lamp	AU
32	LANGF0345TAFW		Tilt Under Angle	AD
33	PGiDM0036TAZZ		Light Guide Plate	AG
34	PMiR-0031TAZZ		Reflection Sheet	AD
35	PSHEP0108TAZZ		Prism Sheet	AF
36	PSHEP0110TAZZ		Radiation Sheet	AD
37	PSHEP0111TAZZ		Wide-Angle Sheet	AD
38	PSHEP0112TAZZ		DBEF Sheet	AL
39	CANGK0442TA01		LCD Tilt Ass'y(PD3S/H)	BB
39	CANGK0442TA02		LCD Tilt Ass'y(PD3E)	
39-1	GCOVA1594TAKA		FPC Cover(PD3S/H)	AG
39-1	GCOVA1594TAKB		FPC Cover(PD3E)	
39-2	GCOVA1595TAKA		Tilt Cover(PD3S/H)	AG
39-2	GCOVA1595TAKB		Tilt Cover(PD3E)	
39-4	PSHEP0120TAZZ		Protection Sheet	AC
39-5	QPWBH2882TAZZ		LCD Tilt FPC	
39-6	QSW-Z0308TAZZ		Turn Switch Unit	AG
39-7	PSHEP0122TAZZ		Tilt Shade Sheet	AC
40	CANGK0449TA01		K.S. LCD S/C Front	AG
40-2	PZETV0406TAZZ		LCD Panel Insulate Sheet	
41	CANGK0450TA01		K.S. LCD S/C Rear	AL
41-2	PSHEP0106TAZZ		LCD Spacer	
41-3	PTPEH0034TAZZ		Double-Faced Tape	AC
42	CPNLC0040RM01		LCD Unit	BX
44	DUNTK2873QA02		Camera Head PWB Unit	–
45	PSHEP0118TAZZ		Shade Sheet A	AA
46	PSHEP0119TAZZ		Shade Sheet B	AA
47	HDECP0053TASA		Top Side Cover Plate (PD3S/H)	AC
47	HDECP0053TASB		Top Side Cover Plate (PD3E)	
A	LX-HZ0050TAFF		Screw M1.7x4 (Black)	AA
B	LX-HZ0050TAFN		Screw M1.7x4 (Silver)	AA
C	XiPSF17P04000		Screw M1.7x4 (Black)	AA
D	XiPSF17P03000		Screw M1.7x3 (Black)	AA
E	XiPSF17P02000		Screw M1.7x2 (Black)	AA
F	XiPSN17P04000		Screw M1.7x4 (Silver)	AA
G	XiPSN17P03000		Screw M1.7x3 (Silver)	AA
H	XiPSN17P02000		Screw M1.7x2 (Silver)	AA
I	LX-BZ0232TAFD		Floating Screw B	AB
J	LX-BZ0220TAFC		Screw M1.7x2 (Chrome)	AB
K	LX-BZ0221TAFC		Screw M1.7x3 (Chrome)	AB
L	LX-HZ0057TAFC		M1.7x5 (Silver) P Tight	AA
M	LX-BZ0235TAFN		Screw for V/F Cover Stopper	AA
N	LX-HZ0071TAFF		Screw for Visibility Pinch	AB
P	XASSF17P02000		V/F Tilt Screw	AA
Q	LX-HZ0017TAFF		LCD Tilt Fixing Screw M2x8 (Black)	AA
R	XiPSN16P05000		Screw for DV Terminal M1.6x5 (Silver)	AA
S	LX-BZ0225TAFF		Floating Screw (Black)	AB
T	LX-BZ0231TAFE		Floating Screw A (Silver)	AB
U	LX-HZ0013TAFF		Screw M1.7x6 (Black)	AA

CAMERA UNIT PARTS LIST

1	PFiLW0076TAZZ	Crystal Filter	AP
2	PCOVM8027TA00	Dust Protection Rubber	AC
3	VHiLZ2373SM-1	CCD Sensor	BM
4	LANGK0437TAFW	CCD Cover Panel	AC
5	PSLDM3333TAMS	Shield Case A	AE
6	DUNTK2873QA02	Camera Head PWB Unit	–
7	LX-HZ0073TAFD	Screw	AA
8	XiPSN17P02000	Screw (1.7 x 2)	AA
9	LX-HZ0050TAFF	Screw	AA
10	LHLDZ1490TAZZ	Jog Switch Holder	AD
11	JKNBP0172TASA	Jog Button	AG
12	PSLDM3334TAFW	Shield Case	AD

Ref. No.	Part No.	★	Description	Code

LENS UNIT PARTS

1	CLNSA0135TA01	Lens Unit	BS
2	90AVEM0641	Zoom Motor U	AU
3	90AXQN16+Cj5	Zoom Motor U Installation Screw	AA

SUPPLIED ACCESSORIES

ACCESSORIES

	TiNSE0317TAZZ	Operation Manual (VL-PD3H)	AM
	TiNSL0157TAZZ	Operation Manual (VL-PD3S)(DEUTSCH etc)	AY
	TiNSL0158TAZZ	Operation Manual (VL-PD3S)(ENGLISH etc)	AX
	TiNSL0159TAZZ	Operation Manual (VL-PD3E/EX)	AX
	TiNSL0160TAZZ	Operation Manual (VL-PD3EW)	
⚠	QACCB0016TAZZ	POWER Cord (VL-PD3H/EW)	AV
⚠	QACCK0002TAZZ	POWER Cord (VL-PD3S/E)	AM
⚠	QACCL0020TAZZ	POWER Cord(VL-PD3EX)	AP
	CCNW-1912TA01	DC Cable(VL-PD3S/H/EX)	
	QCNW-1903TAZZ	DC Cable (VL-PD3E/EW)	
	QCNW-1910TAZZ	S-Video/Video/Audio Cable (VL-PD3S/H/EX)	
	QCNW-1831TAZZ	S-Video/Video/Audio Cable (VL-PD3E/EW)	AY
	RRMCG0071TASA	Infrared R-C	AU
	UADP-0296TAZZ	AC Adapter/Battery Charger	–
	UBATi0053TAZZ	Battery Pack	–
	UBATL0011TAZZ	Lithium Battery	–
	QPLGA0010GEZZ	Plug(VL-PD3E)	AF
	RCORF0056CEZZ	Ferrite Core (VL-PD3S/H/EX)	
	UBNDS0021TAZZ	Shoulder Strap	
	RTPEV0015TAZZ	Mini: DV Video Cassette	

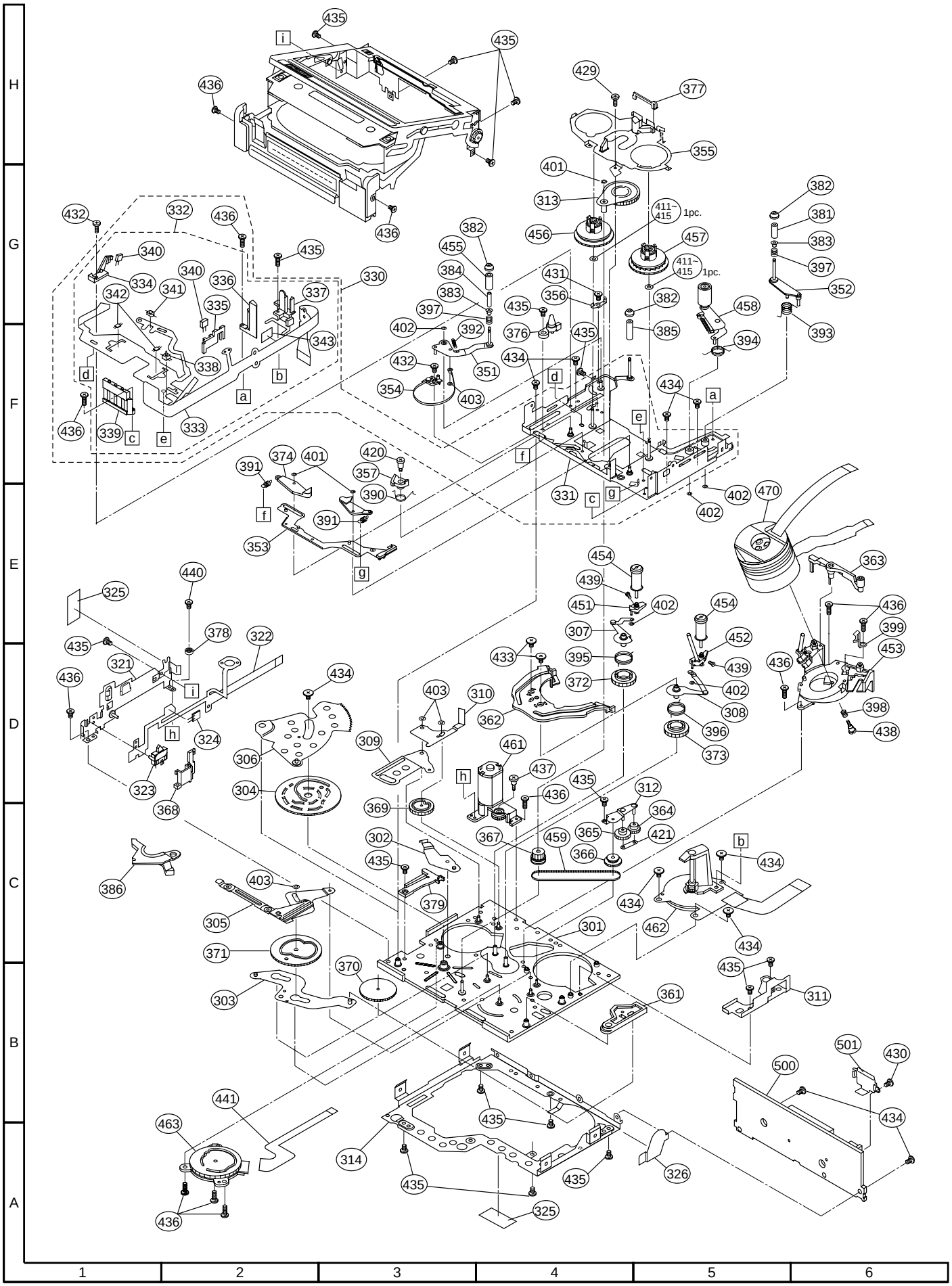
ACCESSORIES
(NOT REPLACEMENT ITEM)

TGANE0050TAZZ	Guarantee Card (VL-PD3EX)	–
TGANE0057TAZZ	Guarantee Card(VL-PD3H)	–
TGANL0004TAZZ	Guarantee Card (VL-PD3S/H)	–

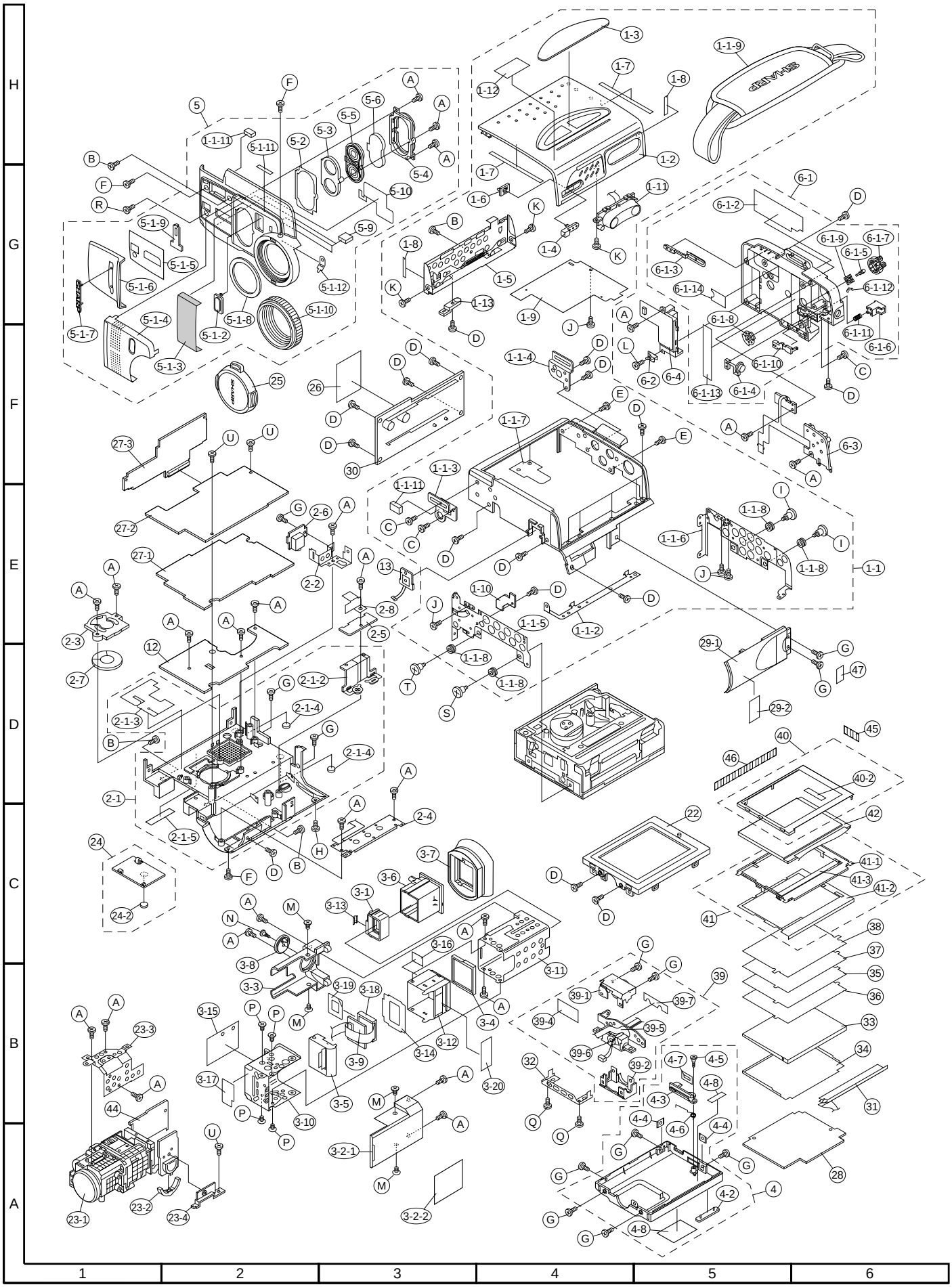
PACKING PARTS
(NOT REPLACEMENT ITEM)

SPAKC7379TAZZ	Packing Case(VL-PD3S)	–
SPAKC7410TAZZ	Packing Case(VL-PD3H)	–
SPAKC7411TAZZ	Packing Case (VL-PD3E/EX)	–
SPAKC7412TAZZ	Packing Case(VL-PD3EW)	–
SPAKA6308TAZZ	Packing Case	–
SPAKA6306TAZZ	Packing Upper	–
SPAKA6307TAZZ	Packing Bottom(VL-PD3S)	–
SPAKF0262TAZZ	Packing	–
SPAKP6108TAZZ	Side Pad	
SPAKP6121TAZZ	Wrapping Paper	–
SSAKA0087TAZZ	Polyethylene Bag (VL-PD3H/E/EW/EX)	–
SSAKA0088TAZZ	Polyethylene Bag (VL-PD3S)	–

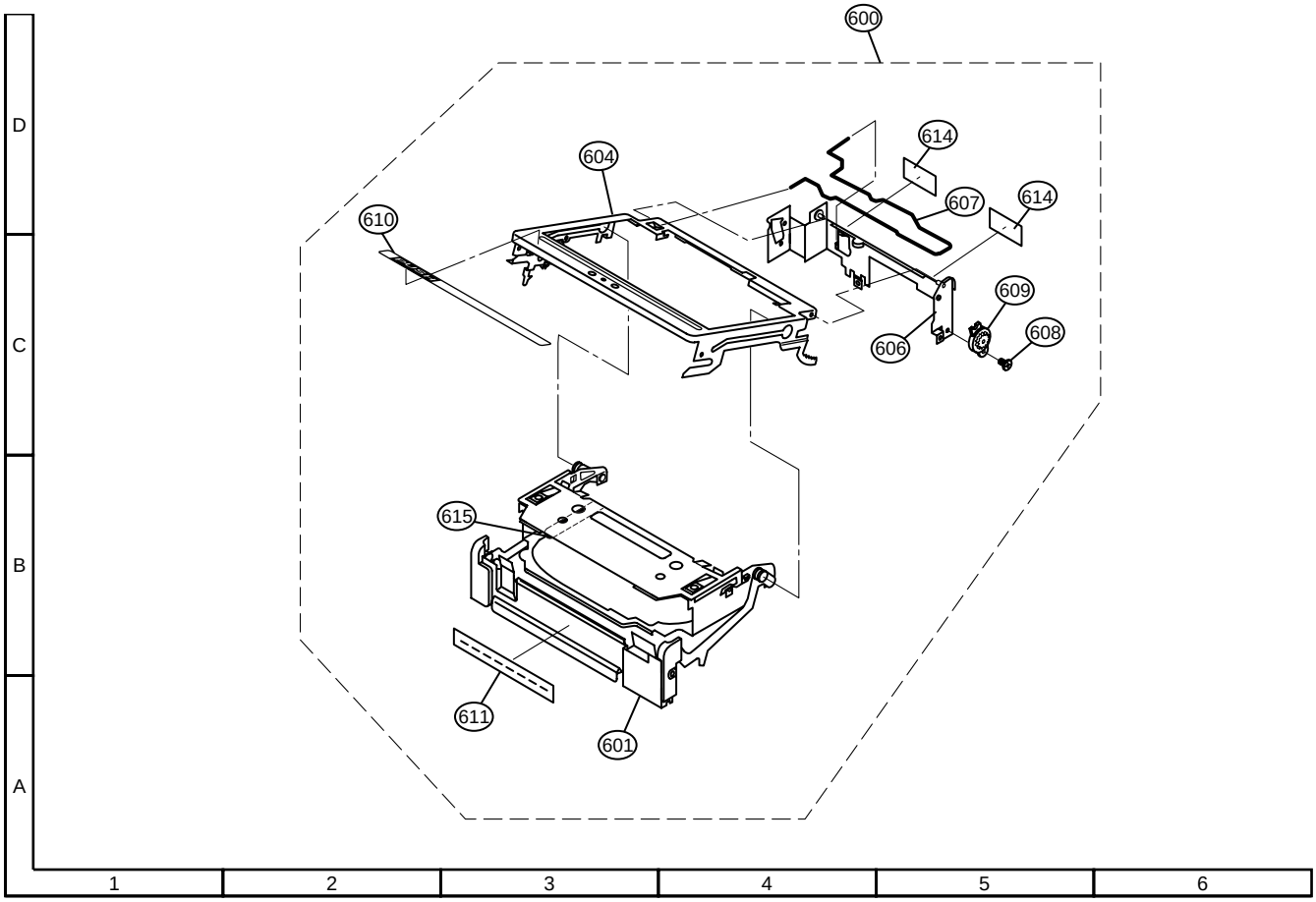
MECHANISM CHASSIS EXPLODED VIEW



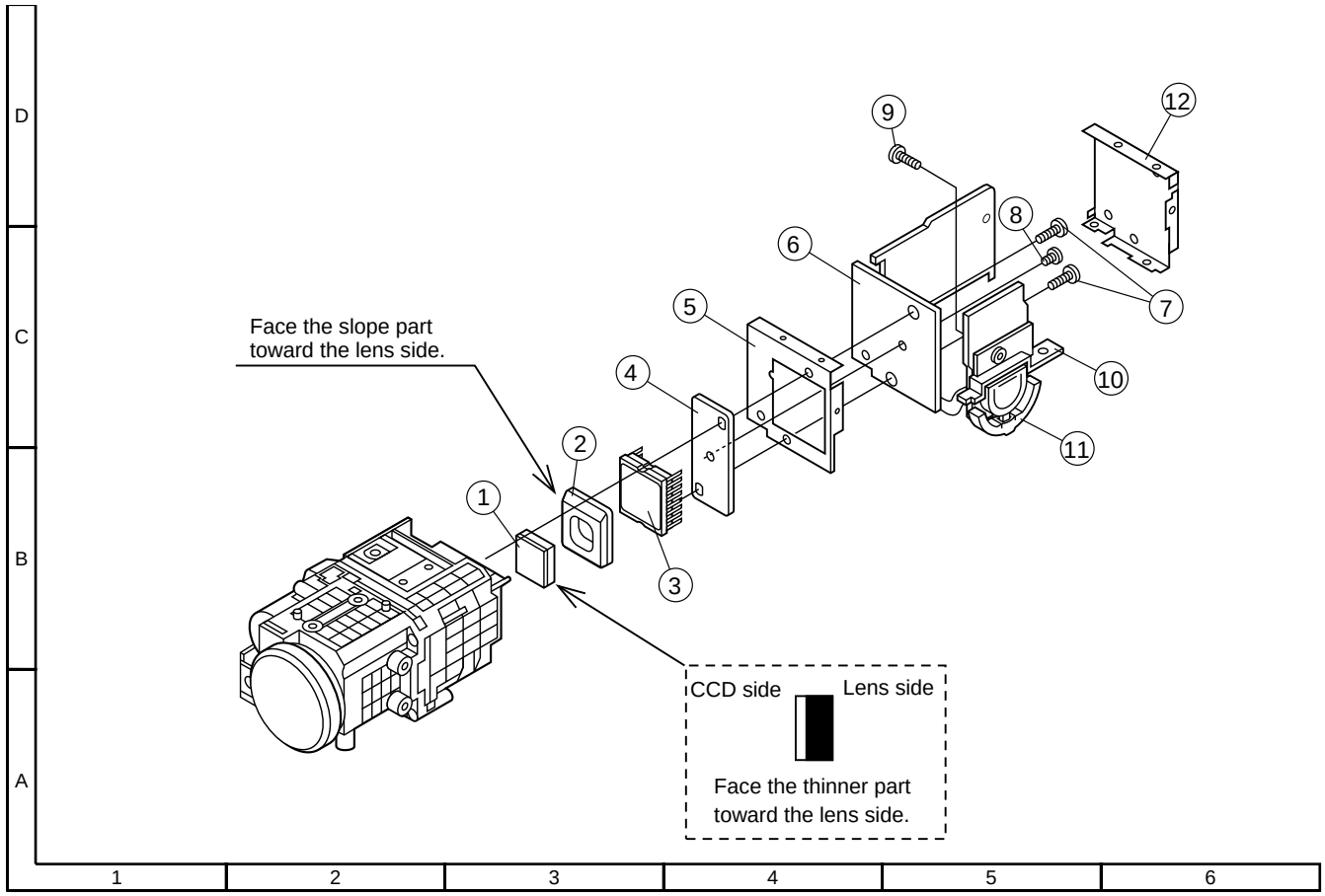
CABINET EXPLODED VIEW



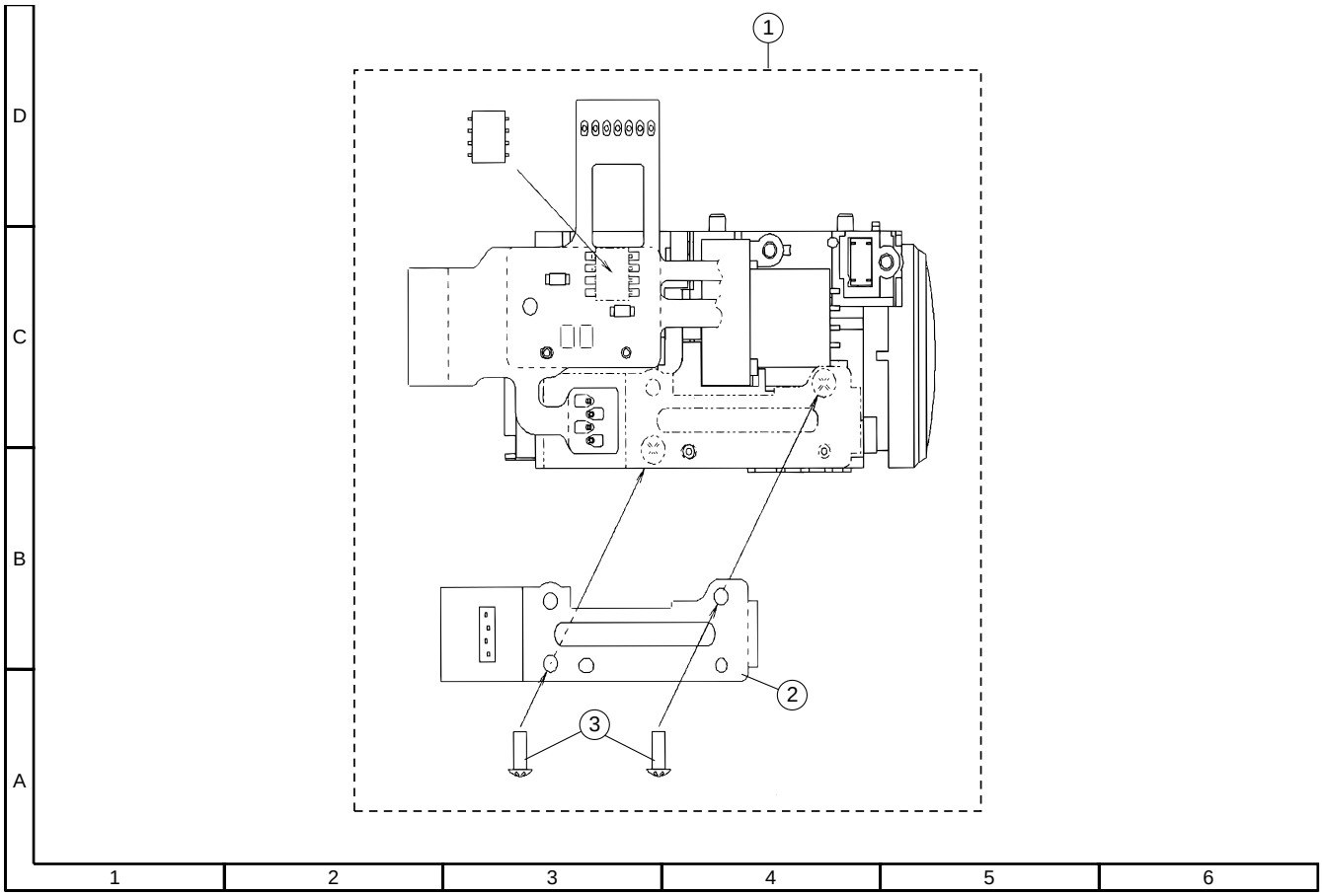
CASSETTE CONTROL EXPLOOD VIEW



CAMERA UNIT EXPLOOD VIEW



LENS UNIT EXPLOOD VIEW



VL-PD3S/H/E SERVICE JIG SPECIFICATIONS

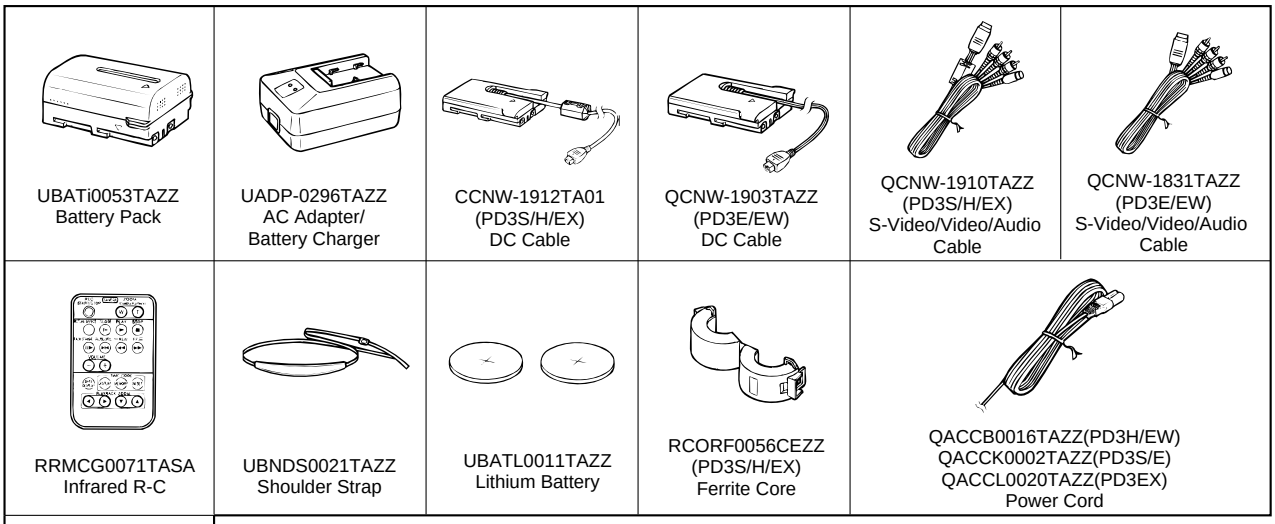
1-1. Adjusting jigs for checking the mechanism

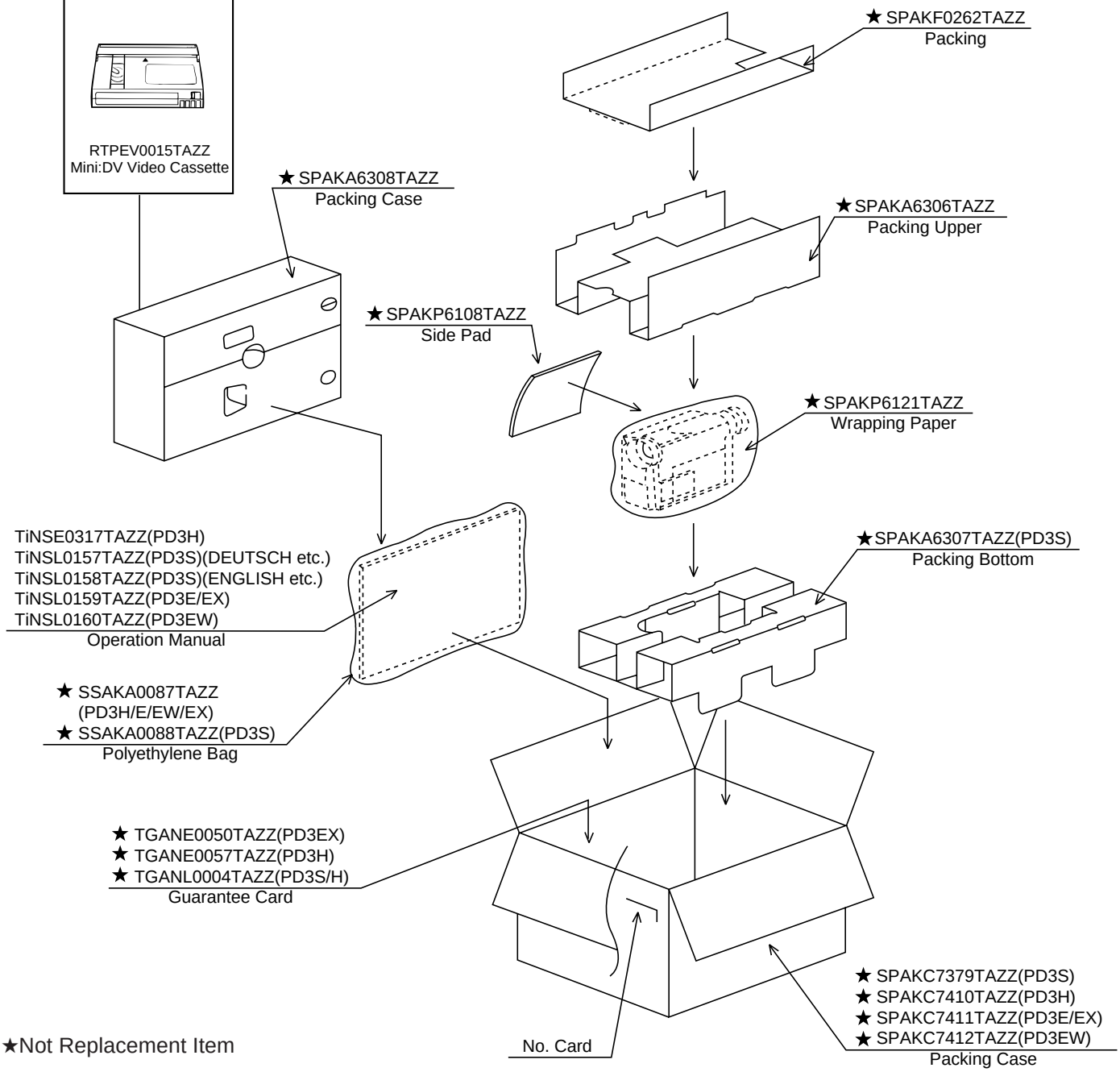
No.	Name	New part	Type number, Application	Part code	Code
1	PB-use cassette torque meter		10g·cm/15g·cm	9DASD-1015	DB
2	Torque gauge		For use in VS-REW take up torque adjustment	JiGTG0045	CN
3	Torque gauge head		For use with the above torque gauge	9EQTGH-DH5000	BW
4	Tension gauge 4N		For measuring of pinch roller pressure	JiGSG0400	BK
5	Dial tension gauge		PTG-10	9DAPTG-10-10W	CA
6	Torque screwdriver (1.5kg·cm)		No. 0 cross bit	JiGTD1500RTDH	CB
7	Master plane		For checking the reel base height	9EQMP-VLPD1	CL
8	Height adjustment jig (a set of 2 pcs.)		For height adjusting	9DAHG-PD1	BZ
9	Height adjustment screwdriver		For S guide adjustment. For guide roller adjustment. For Tu guide adjustment. For T roller adjustment. Bit shape (see figure below).	9EQDRiVER-DH5	BC
10	Alignment tape - I		For tape running adjustment	VR3-GAZXS	CF
11	Alignment tape - II	N	For Switching Point adjustment	VR3-JPZQS	
12	Reel hub for back tension measurement		Refer to Service Manual.	Prepared in the service station.	–
13	String for measuring the pinch roller pressure		Refer to Service Manual.	Prepared in the service station.	–

1-2. Parts for periodical inspection and maintenance

No.	Name	New part	Type number, Application	Part code	Code
1	OiL		Cosumo Hydro HV22	9EQ-OiL-HV22	AE
2	Cleaning paper		Dusper ∑ (SIGMA) ozu Co., LTD	JiGDUSPER	AP
3	Grease: Moly Coat YM-103		Dow coaning	99FGREASE-YM103	AH

17. PACKING OF THE SET





★Not Replacement Item

SHARP

COPYRIGHT © 1999 BY SHARP CORPORATION

ALL RIGHTS RESERVED.

No part of this publication may be reproduced,
stored in a retrieval system, or transmitted in
any form or by any means, electronic, mechanical,
photocopying, recording, or otherwise, without
prior written permission of the publisher.

TQ0585-S
Jan. 1999 Printed in JAPAN
SA. NS

SHARP CORPORATION
AV Systems Group
Quality & Reliability Control Center
Yaita, Tochigi 329-2193, Japan